



# **Quarterly Activities Report Quarter Ended 31 December 2016**

#### **Key Points**

- Record quarterly gold production of 11,734 ounces exceeds forecast
- Ore production, both mined and milled, exceeds forecast
- · Additional ore treatment option successfully trialled
- Ore sold/treated during the Quarter was 223,260 tonnes at 1.73g/t Au for provisional gold recovery of 11,734 ounces
- \$19.2 million received from gold sales
- Cash at the end of quarter of \$4.1 million
- \$2.2M placement completed
- 50% close out of call options
- Board of Directors further strengthened with the addition of Mr Sam Randazzo (NED)
- Drilling to extend reserves commenced

#### The Kalgoorlie North Gold Project (EXG 100%)

#### **ACTIVITIES**

Mining at the Kalgoorlie North Gold Project ("KNGP" or the "Project") was conducted exclusively in the Zoroastrian Central Pit ("Central Pit") during the Quarter. This pit will be the primary ore source for the operations through until June 2017.

Total ore mined was a record 228,262 tonnes at a mine claimed grade of 1.96 g/t Au, the highest to date. Ore treated at Norton Gold Fields Limited's ("Norton") Paddington process plant totalled 172,382 tonnes at an average mined grade of 1.82 g/t Au. In addition to this, 50,878 tonnes at 1.23 g/t Au was delivered to the Lakewood processing plant, which resulted in a total of 223,260 tonnes of ore treated at an assayed / reconciled grade of 1.73 g/t Au with an estimated average recovery of 94% for 11,734 oz Au recovered. There was a slight increase in stockpile value as the volume of material treated through Paddington was lower than expected.

The new resource/reserve model for Zoroastrian Central is performing well, with the reconciled grade for December in line with the resource model and some additional 2,084 ounces being mined outside of all geological models for the quarter.

Gold mined exceeded the previous guidance of 10,200 ozs, coming in at 14,430 ozs. Produced ounces also exceeded forecast by 2,134 ozs, being an estimated 11,734 ozs compared with 9,600 ozs. Due to a build-up of stockpiles and for appropriate cash flow management reasons, additional ore was sent to the Lakewood processing facilities (ASX announcements 9 January 2017, 22 December 2016 and 24 November 2016). As this was a trial, lower grade stockpiles were delivered, which helped the Company exceed its forecasts as well as providing valuable feedback on processing costs and recoveries.

The Company received \$17.5M from the sale of gold bearing ore to Norton (excluding GST) and \$1.7M from the sale of gold produced at the Lakewood facility for total revenue of \$19.2M.

Further provisional revenue of \$5M is owing as second tranche ore sales from the total of the ore batches delivered and processed during the December Quarter. Once final grade and recoveries are determined, the provisional revenue will be offset against processing and haulage cost of those ore batches and the net amount paid to the Company.

#### PRODUCTION SUMMARY

Mining commenced in the Zoroastrian pit in February, 2016, with ore production commencing in early April and haulage of the first batch of ore to the Paddington Mill commenced on 15 April 2016.

Mine Production	Units	June 2016 Quarter <sup>1</sup>	September 2016 Quarter <sup>2</sup>	December 2016 Quarter <sup>2</sup>	FY 2017 Year to Date <sup>3</sup>
Open Pit		TOTAL PITS	CENTRAL	CENTRAL	TOTAL PITS
Waste mined	BCM	1,375,625	1,435,549	706,809	2,142,358
Ore mined	t	113,520	169,524	228,262	397,786
Grade	g/t Au	1.51	1.35	1.96	1.70
Contained gold	Ozs	5,462	7,351	14,430	21,781
Strip ratio	W/O	24.7	18.6	5.8	10.7
Tonnes sold	Dt	101,700	125,291	223,260	349,551
Mill est grade 1	g/t Au	1.73	1.33	1.73	1.58
Mill est recovery 2	%	93.94	93.39	94.0	93.82
Est Recovered ounces 3	ozs Au	5,315	5,003	11,734	16,737
Gold sale price	A\$/oz	\$1,702	\$1710	\$1,624	\$1,671

- 1 adjusted for final gold recovery sampling 2 includes provisional gold recovery data 3 includes provisional and final data
- Note, the tonnes and grade milled differ from mined due to Stockpile movements and grade reconciliations as well as potential rounding errors.
- The additional tonnes milled were the lower grade stockpiles that were sent to Lakewood.

#### **Table 1: Production Summary**

The Company closed out 7,750 ounces for the December 2016 quarter at A\$1,556.70 per ounce under its forward hedging obligations. The Company does not produce gold through the Norton facility in its final form but rather sells gold bearing ore to Norton Goldfields. The grade determination, while being thorough, is not a mill reconciled grade. The EXG ore is blended with Norton's ore at between 10% and 30% of the feed. The ore treatment trial through Lakewood was

on a 100% batched basis and is therefore a fully reconciled gold grade (inclusive of leach and gravity gold components) with gold produced and sold.

It is calculated that the C1 cost for the quarter was \$1,186 per ounce. A detailed breakdown of the treatment costs cannot be published as it is subject to confidentiality agreements. The reduction in costs compared to the previous quarter reflect the scheduled reduction in strip ratio, with 5.8 BCM of waste to each BCM of ore mined during the Quarter.

#### **MINING**

#### Zoroastrian Central Pit

Mining during the Quarter occurred in the Central Pit, with ore and waste mining carried out on the 400mRL to the 380mRL (20 metres vertical depth up to 60m below surface).

Grade control drilling continued, filling gaps in the previous drilling and testing the revised geological interpretation. In the last part of the quarter, the next grade control bench was reached and regular, close spaced grade control drilling for the next 20 vertical metres of the pit commenced.

Due to the decreasing size of the pit with increasing depth, the stripping ratio of the pit is reducing. This is resulting in a higher proportion of ore being exposed every bench. In the last week of December, mining operations were reduced to a single shift operation, which will further reduce mining costs whilst enabling the Company's ore production targets to be met.

Production forecast for the March Quarter 2017 is 140,000 tonnes grading 2.0 g/t Au for 9,500 ounces mined.

Mine Production	Units	December Quarter 2016	December Quarter	March Quarter 2017
		Forecast	2016 Actual	Forecast
Open Pit		CENTRAL	CENTRAL	CENTRAL
Waste mined	ВСМ	689,000	706,809	300,000
Ore mined	t	187,000	228,262	140,000
Grade	g/t Au	1.7	1.96	2.0
Contained gold	Ozs	10,200	14,430	9,500
Strip ratio	W/O	7.6	5.8	4.3
Tonnes milled	Dt	187,000	223,260	180,000
Milled grade	g/t Au	1.7	1.73	1.8
Mill recovery ave	%	94	94	94
Recovered ounces	ozs Au	9,600	11,734	9,800

<sup>•</sup> Note the delay between mining and milling and the use of Stockpiles to keep the mill full will result in mining and milling numbers being different.

**Table 2: Production Forecast Summary** 

Note: The forecast mining strip ratio for the March 2017 quarter is 4.3 : 1.0 compared to 5.8 : 1.0 for the December quarter.

The March 2017 quarter forecast for ore tonnes mined is lower than December 2016 as mining becomes tighter in the pit and excavator operation reduces to a single shift basis.

#### **EXPLORATION**

#### **Bulletin South**

A program of 9 holes has been completed beneath the current pit floor. These holes were drilled from within the old pit, the best results being (ASX announcement 22 December 2016):

- KNC160015 17m @ 2.58g/t Au from 25m
- KNC160016 **11m @ 3.64g/t Au** from 23m

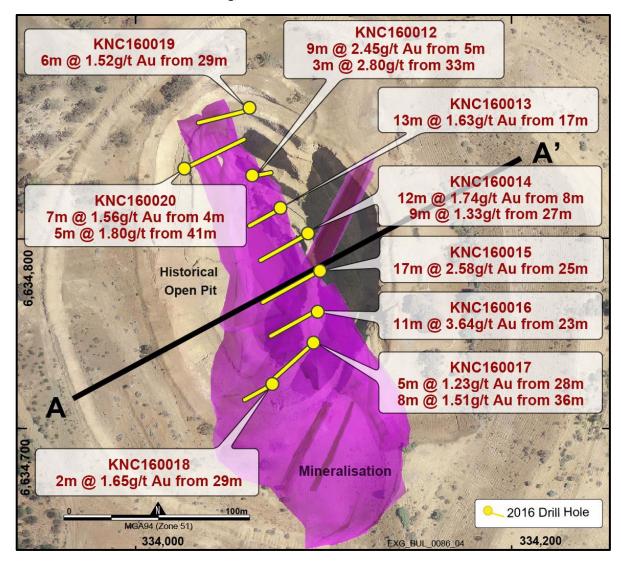


Figure 1 Bulletin South Plan

These holes have successfully confirmed mineralisation widths and grade as reported by historical drilling within the existing Mineral Resource area and confidence in the older drilling is increased as a result.

Subsequently, a Mineral Resource Estimate at Bulletin South has been commenced by Cube Consulting, mining studies are planned for February to examine the viability of a Stage 1 open pit at Bulletin South. Pending the results of the mining study, additional resource drilling may be required for the potential stage 2 pit design.

Results of the recently completed drilling are shown schematically in Fig 1 above.

**Excelsior Gold Limited** 

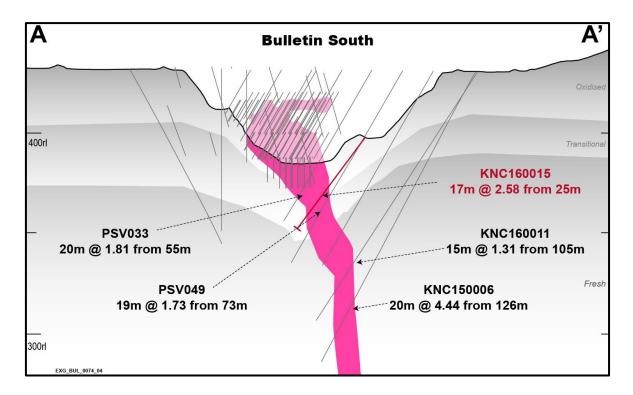


Figure 2 Bulletin South Cross Section

#### **Independent Resource Estimate**

Consulting geologists, Cube Consulting Limited, were commissioned and completed an independent mineral resource estimate for the Bulletin South gold resource. This new, independent, resource utilised the drilling completed in December 2016 which confirmed the mineralisation reported in previous non-Excelsior drilling. This new model will be used for mining studies over the coming months.

The gold Mineral Resource for Bulletin South (above 0.6 g/t Au) is:

645,200 tonnes @ 2.27g/t Au for 46.99koz Au

Bulletin South			Measured Resource Indicated Resource		Inferred Resource			Total Resource				
Lower cut off	Tonnes	Grade (g/t Au)	Ounces Au (000'oz)	Tonnes	Grade (g/t Au)	Ounces Au (000'oz)	Tonnes	Grade (g/t Au)	Ounces Au (000'oz)	Tonnes	Grade g/t Au	Ounces Au (000'oz)
0.6 g/t Au	38,200	1.91	2.34	482,100	2.26	35.01	124,800	2.40	9.64	645,200	2.27	46.99

By way of comparison, the previous gold Mineral resource at Bulletin South was 763kt @ 2.02 g/t Au for 49.7koz Au. The small decrease in contained metal is due to reporting resources only within a pit A\$2,750 per ounce gold price pit shell and refinements in the estimation methods and parameters used.

#### **Zoroastrian South**

Agreement has been reached with the managers of the gas pipeline that runs across the top of parts of the Zoroastrian South resource to allow supervised drilling within the pipeline corridor (ASX announcement 22 December 2016).

The gas pipeline is no longer active but has infrastructure value to the owners of the Cawse Nickel

Mine. In the event that the planned drilling increases the confidence of the Zoroastrian South geological model, there is a potential for an open pit in the area, which is immediately south of the

existing Zoroastrian Central open pit. This will require further studies into the relocation of the

pipeline and if economic, the pipeline will be broken and eventually rerouted around any future

open pit.

Drilling has commenced and will be completed in stages as results become available; it is planned

for the drilling and modelling to be completed towards the end of the March 2017 quarter.

**CORPORATE** 

**Placement** 

On 14 November 2016 (ASX announcement 14 November 2016 Placement raises \$2.2 million), the Company

announced a placement to sophisticated investors of 105.7 million new shares at 2.1 cents per share to raise gross proceeds of \$2.2 million. These funds will be used to underpin the ongoing

production from the Zoroastrian open pit and provides a level of contingency protection against unscheduled events. EXG also announced it had reached agreement with Macquarie Bank to

restructure the existing debt and hedge facilities.

**Call Options** 

On 13 December 2016 (ASX announcement 13 December 2016 50% close-out of call options), EXG announced it has

taken advantage of the lower gold price to close out 9,971oz of the long dated call options; this equates to 50% of the commitment at a cost of approximately \$1.5M. This initiative saved an

estimated \$0.5-\$1.0M in cash outgoings over the next six months based on the now rising gold

price.

This amount of \$1.5M will be converted to a loan with MBL on the same terms as the existing loan,

with the repayments being covered by the cash otherwise set aside in a cash sweep to settle the

call options in July 2017.

**Board of Directors Addition** 

The Company announced the appointment of an additional Non-Executive Director, Mr Sam

Randazzo during the quarter (ASX announcement 26 October 2016).

Mr Randazzo is a Chartered Accountant who has had operational management experience in

Australia, South America, USA, Canada and the UK, and has proved to be a valuable addition to the

Board.

**Financials and Cash Reserves** 

At the close of the Quarter, the Company's consolidated cash reserves totalled \$4.1 million. The Company's cash position remains tight, but manageable. Providing the mine continues to perform

as predicted, the Company expects to be debt free by June/July 2017.

The December Quarter C1 costs are calculated at \$1,186 per ounce

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#### **Reserves and Resources**

The reserves have been updated for mining depletion and latest grade control. As of 1 January 2017 the reserves stand at **249,500 tonnes @ 2.12 g/t Au for 17,000 ounces Au**. See Table 3.

The resources are continually under review and have been updated for mining depletion and relevance, the smaller resources have been removed from reporting and will be subject to further studies and if thought appropriate reinstated at a later date.

As of 1 January 2017 the total resources are **17.1 million tonnes @ 1.61 g/t Au for 887.1 thousand ounces Au**. See Table 4 for full breakdown.

KALGOORLIE NORTH GOLD RESERVES	PROVEN ORE RESERVES			PROB	ABLE ORE	RESERVES	TOTAL ORE RESREVES		
Deposit	Tonnes (,000t)	Grade (g/t Au)	Ounces (,000oz)	Tonnes (,000t)	Grade (g/t Au)	Ounces (,000oz)	Tonnes (,000t)	Grade (g/t Au)	Ounces (,000oz)
Zoroastrian Central				249	2.12	16.971	249	2.12	17.0

Table 3: Gold Reserves as at 1 January 2017

KALGOORLIE NO GOLD RESOURC		M	EASURE	:D	IN	DICATEI	D		INFERRED		тотл	AL RESO	URCES	
Deposit	Cut-Off (g/t Au)	Tonnes (,000t)	Grade (g/t Au)	Ounces (,000oz)	Tonnes (,000t)	Grade (g/t Au)	Ounces (,000oz)	Tonnes (,000t)	Grade (g/t Au)	Ounces (,000oz)	Tonnes (,000t)	Grade (g/t Au)	Ounces (,000oz)	Original ASX report date
Excelsior	0.6	5,175	1.40	232.2	3,230	1.20	124.9	2,652	1.16	99.0	11,057	1.28	456.1	12-Apr-12
Zoroastrian (O/P)	0.6				820	1.80	47.4	980	1.45	45.7	1,800	1.61	93.1	14-Oct-16
Zoroastrian (U/G)	3.0				737	4.83	114.5	218	4.70	33.0	955	4.80	147.5	6-Jul-15
Zoroastrian (Total)					1,519	3.27	159.5	1,198	2.04	78.7	2,717	2.73	238.2	
Lochinvar	0.6				448	1.74	25.1	60	1.70	3.3	508	1.74	28.4	19-Feb-14
Nerrin Nerrin	0.6				74	2.40	5.7	107	2.37	8.1	181	2.38	13.8	15-Nov-13
Ophir	0.6							75	1.94	4.7	75	1.94	4.7	11-Dec-13
Vettersburg South	0.6							552	1.46	25.9	552	1.46	25.9	11-Dec-13
Total Satellite Reso	urces				522	1.84	30.8	793	1.65	42.0	1,315	1.72	72.8	
Other Resources (g	greater th	nan 4km f	rom Exc	elsior)										
Eldorado	0.6				362	1.61	18.8	31	1.43	1.4	393	1.60	20.2	11-Sep-13
Talbot North *	0.6							662	1.67	35.6	662	1.67	35.6	31-Mar-10
Bulletin South	0.6	38	1.91	2.3	482	2.26	35.0	125	2.40	9.6	645	2.27	47.0	23-Jan-17
Windanya	0.6							360	1.49	17.3	360	1.49	17.3	11-Dec-13
Total Other Resource	ces				844	1.98	53.8	1,178	1.69	63.9	2,061	1.81	120.1	
TOTAL RESOUR	CES	5,175	1.40	232.2	6,115	1.88	368.9	5,822	1.52	283.7	17,149	1.61	887.1	

Table 4: Gold Resources as at 1 January 2017

<sup>\*</sup> This information was prepared and first disclosed under the JORC Code 2004. It has not been updated since to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported.

<sup>\*\*</sup> Differences may occur due to rounding.

<sup>\*\*\*</sup> The Bulletin South and Zoroastrian Open Pit resources are reported within a A\$2,750 per ounce gold price pit shell. Other resources are reported above applicable depths below surface.

#### **PROJECT BACKGROUND**

The Kalgoorlie North Gold Project is located 30 to 55 kilometres north of Kalgoorlie in Western Australia and covers 96 square kilometres of tenements over 22 kilometres of strike of the Bardoc Tectonic Zone greenstone belt.

Excelsior Gold commenced mining operations in November 2015 centred on the development of a series of open pit mines and potential underground operations below the Zoroastrian open pits.

Ore mined can be treated at the Paddington Mill, owned by Norton Gold Fields Limited located 20 kilometres south of the current mining operations. Under the Ore Treatment Agreement signed on 13 October 2015 (ASX announcement 13 October 2015) and subsequent modifying letter agreements (ASX announcements 22, 30 and 31 December 2015, 3 February 2016 and 19 May 2016) Norton has agreed to process an initial allocation of 2.9 million dry tonnes of ore at a minimum rate of 500,000 tonnes per annum and up to 750,000 tonnes in CY 2016. Excelsior Gold has also been granted five annual options, each to extend the processing agreement by 12 months providing a potential total dry tonnage available for Excelsior Gold ores of 5.4 million tonnes.

#### **Qualifying Statement**

This report may include forward-looking statements. These forward-looking statements are based on a number of assumptions made by the Company and its consultants in light of experience, current conditions and expectations concerning future events which the Company believes are appropriate in the present circumstances. Forward-looking statements are necessarily subject to risks, uncertainties and other factors, many of which are outside the control of Excelsior Gold, which could cause actual results to differ materially from such statements. The Company makes no undertaking to subsequently update or revise the forward-looking statements made in this release to reflect the circumstances or events after the date of this release.

#### **Competent Person Statement – Exploration Results:**

Information in this announcement that relates to Mineral Resource and exploration results is based on information compiled by Mr. Bradley Toms who is the Exploration Manager of Excelsior Gold Limited. Mr. Toms is a Member of The Australian Institute of Geoscientists and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity that he is undertaking, to qualify as Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr. Toms consents to the inclusion in the document of the information in the form and context in which it appears.

#### Competent Person Statements – Mineral Resources:

Information in this announcement that relates to the Zoroastrian Mineral Resource results is based on information compiled by Mr. Patrick Adams who is a Director of Cube Consulting Pty Ltd. Mr. Adams is a Fellow of the AuslMM (CP) and a Member of The Australian Institute of Geoscientists and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity that he is undertaking, to qualify as Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr. Adams consents to the inclusion in the document of the information in the form and context in which it appears.

Information in this announcement that relates to the Bulletin South Mineral Resource results is based on information compiled by Mr. Patrick Adams who is a Director of Cube Consulting Pty Ltd. Mr. Adams is a Fellow of the AusIMM (CP) and a Member of The Australian Institute of Geoscientists and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity that he is undertaking, to qualify as Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr. Adams consents to the inclusion in the document of the information in the form and context in which it appears.

Information in this announcement that relates to other Mineral Resource results is based on information compiled by Mr Bradley Toms who is a full-time employee of Excelsior Gold Limited. Mr Toms is a Member of the Australian Institute of Geoscientists and 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" for the Group reporting. Mr Toms consents to the inclusion in this announcement of the matters based on this information in the form and context in which it appears.

#### Competent Person Statement - Ore Reserves Zoroastrian Central Open Pit

The information in this Release which relates to the Ore Reserve estimates accurately reflect information prepared by Competent Persons (as defined by the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves). The information in this public statement that relates to the Zoroastrian Central Open Pit Ore Reserve at the Excelsior Gold Kalgoorlie North Gold Project is based on information resulting from Feasibility works carried out by Excelsior Gold Limited. Mr. Randell Ford, who is employed by Excelsior Gold Limited and works at the Zoroastrian Central open pit as the Registered Mine Manager, completed the Ore Reserve estimate for the Zoroastrian Central Open Pit. Mr Ford is a Member of the Australasian Institute of Mining and Metallurgy and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that he is undertaking to qualify him as a Competent Person as defined in accordance with the 2012 Edition of the Australasian Joint Ore Reserves Committee (JORC). Mr Ford consents to the inclusion in the document of the information in the form and context in which it appears.

#### **TENEMENT SCHEDULE**

		BENEFICIAL
TENEMENT	REGISTERED HOLDER	OWNER
	TRALIA – KALGOORLIE NORTH GOLD I	
L24/148	GPM Resources Pty Ltd	GPM (100%)
L24/202	GPM Resources Pty Ltd	GPM (100%)
L24/203	GPM Resources Pty Ltd	GPM (100%)
L24/209	GPM Resources Pty Ltd	GPM (100%)
L24/223	GPM Resources Pty Ltd	GPM (100%)
M24/11	GPM Resources Pty Ltd	GPM (100%)
M24/43	GPM Resources Pty Ltd	GPM (100%)
M24/83	GPM Resources Pty Ltd	GPM (100%)
M24/96	GPM Resources Pty Ltd	GPM (100%)
M24/99	GPM Resources Pty Ltd	GPM (100%)
M24/121	GPM Resources Pty Ltd	GPM (100%)
M24/122	GPM Resources Pty Ltd	GPM (100%)
M24/135	GPM Resources Pty Ltd	GPM (100%)
M24/244	GPM Resources Pty Ltd	GPM (100%)
M24/326	GPM Resources Pty Ltd	GPM (100%)
M24/405	GPM Resources Pty Ltd	GPM (100%)
M24/420	GPM Resources Pty Ltd	GPM (100%)
M24/469	GPM Resources Pty Ltd	GPM (100%)
M24/498	GPM Resources Pty Ltd	GPM (100%)
M24/510	GPM Resources Pty Ltd	GPM (100%)
M24/512	GPM Resources Pty Ltd	GPM (100%)
M24/854	GPM Resources Pty Ltd	GPM (100%)
M24/869	GPM Resources Pty Ltd	GPM (100%)
M24/870	GPM Resources Pty Ltd	GPM (100%)
M24/871	GPM Resources Pty Ltd	GPM (100%)
M24/886	GPM Resources Pty Ltd	GPM (100%)
M24/887	GPM Resources Pty Ltd	GPM (100%)
M24/888	GPM Resources Pty Ltd	GPM (100%)
P24/4587	GPM Resources Pty Ltd	GPM (100%)
M24/364	Aberfoyle Exploration	GPM (100%)
M24/487	GPM Resources Pty Ltd	GPM (100%)
M24/133	GPM Resources Pty Ltd	GPM (100%)
M24/134	GPM Resources Pty Ltd	GPM (100%)
M24/348	GPM Resources Pty Ltd	GPM (100%)
M24/471	GPM Resources Pty Ltd	GPM (100%)
M24/491	GPM Resources Pty Ltd	GPM (100%)
M24532	GPM Resources Pty Ltd	GPM (100%)
M24/889	GPM Resources Pty Ltd	GPM (100%)
M24/890	_	GPM (100%)
M24/891	GPM Resources Pty Ltd	GPM (100%)
	GPM Resources Pty Ltd	\
M24/892	GPM Resources Pty Ltd	GPM (100%) GPM (100%)
M 24/	GPM Resources Pty Ltd	
M 24/952	GPM Resources Pty Ltd	GPM (100%)

**Excelsior Gold Limited** 

		BENEFICIAL
TENEMENT	REGISTERED HOLDER	OWNER
M24/146	GPM Resources Pty Ltd	GPM (100%)
M24/395	GPM Resources Pty Ltd	GPM (100%)
M24/955	GPM Resources Pty Ltd	GPM (100%)
10124/333	GPM Resources Pty Ltd (95%)	GPM (95%),
M24/942	Denzle Schorer (5%)	Schorer (5%)
M24/943	GPM Resources Pty Ltd	GPM (100%)
	GFW Resources Fty Ltu	GPM (80%),
P24/4757	Silvertree Nominees	Silvertree (20%)
		GPM (80%),
P24/4758	Silvertree Nominees	Silvertree (20%)
M24/956	GPM Resources Pty Ltd	GPM (100%)
M24/400	GPM Resources Pty Ltd	GPM (100%)
M24/429	GPM Resources Pty Ltd	GPM (100%)
P24/4373	GPM Resources Pty Ltd	GPM (100%)
P24/4374	GPM Resources Pty Ltd	GPM (100%)
P24/4375	GPM Resources Pty Ltd	GPM (100%)
P24/4445	GPM Resources Pty Ltd	GPM (100%)
P24/4446	GPM Resources Pty Ltd	GPM (100%)
P24/4447	GPM Resources Pty Ltd	GPM (100%)
P24/4449	GPM Resources Pty Ltd	GPM (100%)
M24/950	GPM Resources Pty Ltd	GPM (100%)
P24/4626	GPM Resources Pty Ltd	GPM (100%)
P24/4627	GPM Resources Pty Ltd	GPM (100%)
P24/4628	GPM Resources Pty Ltd	GPM (100%)
P24/4816	GPM Resources Pty Ltd	GPM (100%)
P24/4821	GPM Resources Pty Ltd	GPM (100%)
P24/4822	GPM Resources Pty Ltd	GPM (100%)
P24/4823	GPM Resources Pty Ltd	GPM (100%)
P24/4824	GPM Resources Pty Ltd	GPM (100%)
P24/4825	GPM Resources Pty Ltd	GPM (100%)
P24/4826	GPM Resources Pty Ltd	GPM (100%)
P24/4832	GPM Resources Pty Ltd	GPM (100%)
P24/4833	GPM Resources Pty Ltd	GPM (100%)
P24/4840	GPM Resources Pty Ltd	GPM (100%)
P24/4857	GPM Resources Pty Ltd	GPM (100%)
P24/4858	GPM Resources Pty Ltd	GPM (100%)
P24/4859	GPM Resources Pty Ltd	GPM (100%)
P24/4860	GPM Resources Pty Ltd	GPM (100%)
P24/4861	GPM Resources Pty Ltd	GPM (100%)
P24/4886	GPM Resources Pty Ltd	GPM (100%)
P24/4887	GPM Resources Pty Ltd	GPM (100%)
P 24/5060	GPM Resources Pty Ltd	GPM (100%)
P 24/5061	GPM Resources Pty Ltd	GPM (100%)

#### **LEGEND**

Silvertree Silvertree Nominees Pty Ltd

Aberfoyle Exploration
GPM
Aberfoyle Exploration Pty Ltd
GPM Resources Pty Ltd – wholly owned subsidiary of Excelsior Gold Limited (EXG)

### JORC Code, 2012 Edition - Table 1 - BULLETIN SOUTH

### **Section 1 Sampling Techniques and Data**

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (e.g. 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. In cases where 'industry standard' work has been done this would be relatively simple (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>The Bulletin South open pit was mined up to April 1994. The drill hole database consists of historic (pre-2003) and EXG drilling data. The historical data is concentrated mostly within the part that has been mined, whilst the EXG drill holes extend below the pit.</li> <li>Historical holes consist of 562 grade control RB (possibly some form of RC), 70 RC holes and 9 grade control RC holes (RCGC). The grade control holes were drilled at an average spacing of 3m x 5m (N x E) and in general 1m samples were collected.</li> <li>Complete details are un-available for historic drilling.</li> <li>EXG holes, 2 diamond drill holes and 34 RC holes were drilled at variable azimuths at dips of -60° to -50° to optimally test for potential mineralized zones, at a nominal spacing of 40m x 20m (N x E). There are in total 677 drill holes used in the resource estimate.</li> <li>All RC recovered samples were collected and passed through a cone splitter. Prior to drilling, the drill hole locations were pegged using either contract surveyors or hand held GPS units. After drilling, all drill hole locations are picked up by surveyors using a RTK system. All drill holes greater than 80m drilled by EXG are down hole surveyed by contractors using industry standard digital tools.</li> <li>All RC drilling was sampled on one metre down hole intervals. The recovered samples were passed through a cone splitter and a nominal 2.5kg -3.5kg sample was collected. Where the original 1m samples were not collected, nominal 4m composite samples were collected by spear sampling individual 1m composite intervals.</li> <li>Industry standard work undertaken by EXG has in most instances supported the grades and widths indicated by historic drilling — there is a risk inherent in this MRE that the historic drilling data is to some unknown extent biased or not representative as this cannot be demonstrated due to lack of QA/QC information.</li> </ul>
Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. 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>Little information is available on the drilling techniques for the historical holes. However, holes have been drilled by Caris Corporation during 1984; by Getty Oil in 1984 and 1985 (using a Schramm T66H RC rig); by Aberfoyle during 1986, 1987; by MMC Management during 1993; by Goldfields during 1996 and 1998 (using a Schramm660 RC rig drilling 5.5" holes) and by Halycon during 2003 and 2004.</li> <li>For (post 2011) EXG drilling, the RC drilling (Redmond Drilling – Schramm RC with cyclone attached) system employed the use of a face sampling hammer and a nominal 146mm diameter drill bit. The DC drilling is NQ2 size core (nominal 50.6mm core diameter) or HQ (nominal 63.5mm core diameter).</li> <li>All EXG drill core is orientated by the drilling contractor with a down the hole Ace system. Core diameter is noted in the assay results table for DC assay results.</li> </ul>
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed      Measures taken to maximise sample recovery and ensure representative nature of the samples      Whether a relationship exists between sample recovery and grade and whether	Historical holes were generally sampled at 1m intervals which were split on site and reduced to samples of between 1-1.5kg in weight. A four metre composite was taken at the same time which was assayed for Au and As by Kalgoorlie Assay Laboratory. Intervals containing anomalous gold were re-assayed using the 1m samples. The Goldfield holes were sampled on 1m intervals, with samples being placed on the ground. All dry samples were riffle split to 4kg and all wet samples were scoop sampled. Alternate samples were submitted for analysis, and infill samples were subsequently tested once any anomalous zones were identified. All alternate samples were analysed by either ALS or Analabs for gold by Fire Assay to 0.01ppm using a 50g charge

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sample bias may have occurred due to preferential . loss/gain of fine/coarse All EXG RC 1m samples are logged for drilling recovery by a visual material. estimate and this information is recorded and stored in the drilling database. At least every 10th metre is collected in a plastic bag and these are weighed when they are utilized for the collection of field duplicate samples. All samples received by the laboratory are weighed with the data collected and stored in the database The EXG DC samples are orientated, length measured and compared to core blocks placed in the tray by the drillers, any core loss or other variance from that expected from the core blocks is logged and recorded in the database. Sample loss or gain is reviewed on an ongoing basis and feedback given to the drillers to enable the best representative sample to always be obtained. EXG RC samples are visually logged for moisture content, sample recovery and contamination. This is information is stored in the database. The RC drill system utilizes a face sampling hammer which is industry best practice and the contractor aims to maximize recovery at all times. RC holes are drilled dry whenever practicable to maximize recovery of sample. The DC drillers use a core barrel and wire line unit to recover the core, they aim to recover all core at all times and adjust their drilling methods and rates to minimise core loss, i.e. different techniques for broken ground to ensure as little core as possible is washed away with drill cuttings. Study of sample recovery vs gold grade does not show any bias towards differing sample recoveries or gold grade. The drilling contractor uses standard industry drilling techniques to ensure minimal loss of any size fraction. Logging Whether core and chip samples have All EXG RC samples are geologically logged directly into hand-held been geologically and geotechnically Geobank devices. logged to a level of detail to support appropriate Mineral Resource estimation, All EXG DC is logged for core loss, marked into metre intervals, mining studies and metallurgical studies. orientated, structurally logged, geotechnically logged and logged with a hand lens with the following parameters recorded where observed: weathering, regolith, rock type, alteration, mineralization, Whether logging is qualitative or quantitative in nature. Core (or costean, shearing/foliation and any other features that are present channel, etc) photography. All EXG DC is photographed both wet and dry after logging but before cutting. The total length and percentage of the relevant intersections logged. The entire lengths of EXG RC holes are logged on a 1m interval basis, i.e. 100% of the drilling is logged, and where no sample is returned due to voids (or potentially lost sample) it is logged and recorded as such. Drill core is logged over its entire length and any core loss or voids intersected are recorded. Sub-sampling EXG Exploration results reported for drill core are half core taken from If core, whether cut or sawn and whether techniques and quarter, half or all core taken. the right hand side of the core looking down hole. Core is cut by sample contractors with a diamond core saw and all sampling is conducted by Excelsior geologists. preparation If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet All EXG RC samples are put through a cone splitter and the sample or dry. is collected in a unique pre-numbered calico sample bag. The moisture content of each sample is recorded in the database. For all sample types, the nature, quality and appropriateness of the sample preparation technique. The EXG RC samples are sorted, oven dried, the entire sample is pulverized in a one stage process to 85% passing 75 µm. The bulk pulverized sample is then bagged and approximately 200g extracted Quality control procedures adopted for all sub-sampling stages representivity of samples. by spatula to a numbered paper bag that is used for the 50g fire assay stages to maximise charge. Measures taken to ensure that the The EXG DC samples are oven dried, jaw crushed to nominal <10mm, 3.5kg is obtained by riffle splitting and the remainder of the coarse sampling is representative of the in situ material collected, including for instance reject is bagged while the 3.5kg is pulverized in a one stage process to 85% passing 75 µm. The bulk pulverized sample is then bagged results for field duplicate/second-half and approximately 200g extracted by spatula to a numbered paper sampling. bag that is used for the 50g fire assay charge. Whether sample sizes are appropriate to EXG RC and DC samples submitted to the laboratory are sorted and the grain size of the material being reconciled against the submission documents. EXG inserts blanks sampled.

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and standards with blanks submitted in sample number sequence at

1 in 50 and standards submitted in sample number sequence at 1 in 20. The laboratory uses their own internal standards of 2 duplicates, 2 replicates, 2 standards, and 1 blank per 50 fire assays. The laboratory also uses barren flushes on the pulveriser.

- In the field every 10<sup>th</sup> metre from the bulk sample port on the cone splitter is bagged and placed in order on the ground with other samples. This sample is then used for collection of field duplicates via riffle splitting. RC field duplicate samples are collected after results are received from the original sample assay. Generally, field duplicates are only collected where the original assay result is equal to or greater than 0.1g/t Au. The field duplicates are submitted to the laboratory for the standard assay process. The laboratory is blind to the original sample number.
- The results of this field duplicate process are within acceptable limits, indicating that the RC sample results are repeatable.
- For DC, no core duplicates (i.e. half core) have been collected or submitted.
- The sample sizes are considered to be appropriate for the type, style, thickness and consistency of mineralization located at this project.
   The sample size is also appropriate for the sampling methodology employed and the gold grade ranges returned.

#### Quality of assay data and laboratory tests

- The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.
- 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.
- Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.
- EXG has routinely used local Kalgoorlie Certified Laboratories for all sample preparation and analysis. The most commonly used laboratories have been SGS Australia and Bureau Veritas Australia which has two facilities in Kalgoorlie. No complete details of the sample preparation, analysis or security are available for either the historic AC, DD or RC drilling results in the database.
- The assay method is designed to measure total gold in the sample.
   The laboratory procedures are appropriate for the testing of gold at this project given its mineralization style. The technique involves using a 40g sample charge with a lead flux which is decomposed in a furnace with the prill being totally digested by 2 acids (HCl and HNO3) before measurement of the gold content by an AA machine.
- The QC procedures are industry best practice. The laboratory is accredited and uses its own certified reference material. The laboratory has 2 duplicates, 2 replicates, 1 standard and 1 blank per 50 fire assays.
- EXG submits blanks at the rate of 1 in 50 samples and certified reference material standards at the rate of 1 in 20 samples in the normal run of sample submission numbers. As part of normal procedures EXG examines all standards and blanks to ensure that they are within tolerances. Additionally, sample size, grind size and field duplicates are examined to ensure no bias to gold grade exists.

#### Verification of sampling and assaying

- The verification of significant intersections by either independent or alternative company personnel.
- The use of twinned holes.
- Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.
- Discuss any adjustment to assay data.
- No independent verification of significant intersections has been undertaken.
- A number of RC holes have been drilled throughout the deposit to twin historical RC holes. These twinned holes returned results comparable to the original holes and were also used to collect geological information and material for metallurgical assessment. Both historical and new diamond drilling has been drilled to confirm geological interpretation and results obtained from RC drill holes.
- Primary data is sent digitally every 2-3 days from the field to EXG's Database Administrator (DBA). The DBA imports the data into the commercially available and industry accepted DataShed database software. Assay results are merged when received electronically from the laboratory. The responsible geologist reviews the data in the database to ensure that it is correct and has merged properly and that all data has been received and entered. Any variations that are required are recorded permanently in the database.
- No adjustments or calibrations were made to any assay data used in this report.

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Location of data points	<ul> <li>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> <li>Quality and adequacy of topographic control.</li> <li>All drill holes and resour system.</li> <li>The topographic data us and is based on a LiDAF reporting of Exploration</li> </ul>	collar location recorded from a hand held GPS is are completed every 30m downhole. No eying information is available for the historic did down hole surveys during the programmes reach RC and DC drill hole completed using multi-shot tool or north seeking gyro, both of a Contractors to manufacturer specifications.  Truck estimation use the MGA94, Zone 51 grid seed was obtained from consultant surveyors R survey flown in 2012. It is adequate for the Results and subsequent Mineral Resource final pit survey has been used to deplete the
Data spacing and distribution	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.  sections filled to 10m. verified from previous ex  This report is for the report drill spacing, spatial dissufficient to support the J this report and is appropriate being reported.	drill spacing is 40m x 20m with some cross. This spacing includes data that has been apploration activities on the project orting of the Mineral Resource Estimate. The istribution and quality of assay results is IORC classification of material reported within riate for the nature and style of mineralisation are sampled at 1m, but when this isn't the case, m has been applied.
Orientation of data in relation to geological structure	achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.  mineralized zones are mapping and geophysica and sampling method.	is to grid east or west. The bulk of the perpendicular to the drilling direction. Field al interpretations supports the drilling direction and sampling bias has been recognized at this
Sample security  Audits or	security.  laboratory by EXG pers laboratory then checks EXG generated sample discrepancies	red directly from the field to the Kalgoorlie onnel on a daily basis with no detours, the the physically received samples against an e submission list and reports back any sampling techniques and procedures was
reviews		4. No external or third party audits or reviews

## Section 2 Reporting of Exploration Results (Bulletin South) (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.	<ul> <li>The results reported in this Announcement are on granted Mining tenements held by GPM Resources Pty Ltd, a wholly owned subsidiary of Excelsior Gold Limited.</li> <li>At this time the tenements are believed to be in good standing. There is a royalty of \$2 per tonnes of ore removed payable to third parties.</li> </ul>

Exploration done by other parties	exploration by other parties. to o	exploration by other parties has been reviewed and is used as a guide of EXG's exploration activities. Previous parties have completed both open pit and underground mining, geophysical data collection and interpretation, soil sampling and drilling. This report only comments in exploration results collected by EXG.
Geology	of mineralisation.  a te	The primary gold mineralisation at Bulletin South is predominantly issociated with a quartz rich dolerite unit with a strongly porphyritic exture and associated second order structures. The gold nineralisation is associated with quartz, carbonate, sulphide alteration.  Whilst structure and primary gold mineralisation can be traced to the surface, depletion has occurred in the top 10-20m distorical working and shafts exist within the area, detailed mapping and sampling of these workings and structural measurements from orientated diamond core drilling assists with the geological interpretation.
Drill hole Information	the understanding of the exploration o	The table below summarise the recent exploration results carried out in Bulletin South during 2016.
	results including a tabulation of the following information for all Material drill	REP (MGARA 751) (MGARA 751) (m) DEPTH DIP AZIM (m) (m) (m) (Au a/t)
	holes:	0012 334047.18 6634838.27 389.55 45 -75 79 <b>5 14 9 2.45</b>
	easting and northing of the drill hole collar     elevation or RL (Reduced Level –	
	elevation above sea level in metres) of the drill hole collar	0014 334077.09 6634806.77 393.84 50 -55 240 8 23 12 1.74 27 36 9 1.33 39 41 2 2.82
	KNC160	0015 334083.1 6634786.64 393.55 55 -53 240 <b>25 42 17 2.58</b>
	KNC160 KNC160	0017 334080.42 6634747.74 400.73 60 -61 227 28 33 5 1.23
	KNC160	
	o down hole length and interception depth	
	KNC16G	0020 334010.48 6634842.52 419.66 60 -55 63 4 11 7 1.56 10 11 1 6.32
	o hole length.	34 35 1 1.13 41 46 5 1.8 50 51 1 1.5
		lo results from previous unreported exploration are the subject of this innouncement
Data aggregation methods		No high grade cuts have been applied to assay results. RC assay esults are distance weighted using 1m for each assay.
	longer lengths of low grade results, the procedure used for such aggregation Ir	Intersections are reported if the interval is at least 1m wide at 1.0g/t and grade or for composite samples greater than 1.0 g/t Au. Intersections greater than 1m in downhole distance can contain up to term of ow grade of barren material.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.  N	No metal equivalent reporting is used or applied.

Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results.  The intersection width is measured down the hole trace and does no correspond to the true width. The cross section below demonstrates the relationship between true width and downhole width to be viewed  Bulletin South  A'  Bulletin South  KNC160015  17m @ 2.58 from 25m  If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').  PSV049  19m @ 1.73 from 73m  KNC150006  KNC150006  KNC150006  KNC150006  Fresh  19m @ 1.73 from 73m
	Figure 2 Bulletin South Cross Section      Data collected from historical workings and existing shafts as well as structural measurements from orientated diamond drill core show the primary ore zones to be sub-vertical in nature with a general NW strike.
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> <li>Refer to EXG ASX announcement on Operation Update dated 22 December 2016</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> <li>Refer to EXG ASX announcement on Operation Update dated 22 December 2016</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> <li>No other exploration data is considered meaningful and material to this announcement</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Future exploration has not been planned and may involve the drilling of more drill holes, both DC and RC, to further extend the mineralised zones and collect additional detailed data on known mineralised zones.</li> </ul>
	<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> <li>Further future drilling areas are not highlighter as they are not ye planned.</li> </ul>

## Section 3 Estimation and Reporting of Mineral Resources (Bulletin South) (Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

the properties of the computed by, for example, transcription or keiging errors, between its initial collection and its use for Mineral Resource estimation proposes.  Data validation procedures used.  Camment on any site visits undertaken by the Competent Person and the outcome of those visits.  If no site visits  Comment on any site visits undertaken by the Competent Person and the outcome of those visits.  If no site visits have been undertaken by the Competent Person and the outcome of those visits.  If no site visits have been undertaken interpretation  Confidence in (or conversely, the undertaken interpretation)  The effect, if any, of alternative interpretations of the mineral deposit.  Nature of the data used and of any assumptions made.  The effect, if any, of alternative interpretations on Mineral Resource estimation.  The lactors affecting continuity both of grade and geology.  The use of geology in guiding and controlling Mineral Resource estimation.  The factors affecting continuity both of grade and geology.  The use of peology in guiding and controlling Mineral Resource estimation.  The factors affecting continuity both of grade and geology.  The use of historical drilling provides a level of uncertainty as the tomps of the Mineral Resource estimation.  The source of geology in guiding and controlling Mineral Resource estimation.  The source of geology in guiding and controlling Mineral Resource estimation.  The source of geology in guiding and controlling Mineral Resource estimation.  The source of geology in guiding and controlling Mineral Resource estimation.  The source of geology in guiding and controlling Mineral Resource and the settle of the settle production resonance and whether affects are all the settle production resonance and whether the Mineral Resource estimate in the Mineral Resource of componing resource where the Mineral Resource is subjected with the (45-	Criteria	JORC Code explanation	Commentary
### Comment on any site visits undertaken by the Competent Person and the outcome of those visits.  ### If no site visits have been undertaken indicate why this is the case.  ### Geological interpretation  ### Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.  ### Nature of the data used and of any assumptions made.  ### The effect, if any, of alternative interpretations on Mineral Resource estimation.  ### The use of geology in guiding and controlling Mineral Resource estimation.  ### The sactors affecting continuity both of grade and geology.  ### The extent and variability of the Mineral Resource expressed as length (along sinker or otherwise), plan width, and depth below warfoo to the upper and lover for otherwise), plan width, and depth below warfoo to the upper and lover for extreme grade values, domaining interpolation recontained and modelling techniques  #### Estimation and modelling techniques  #### The assumptions made regarding recovery of by-products.  #### Estimation of deleterious elements or other non-grade variables of economic significance (e.g. subplum for acid mine drainage characterization).  #### Comment on any site visits undertaken by the people and love in the production records and whether the Mineral Resource estimates on the Mineral Resource in the Mineral Resource of the Mineral Resource in the State		not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.	device. Lab submission sheets are digitally recorded in the same way. Assay data are received from the laboratories in an electronic format and are imported directly into a standard DataShed system. All data have been validated by the EXG Database Administrator and geological management prior to transmission to Cube.  • Any errors recorded from the various validation processes are manually checked and correlated back to the original collection of
interpretation  Interpretation  Interpretation of the mineral deposit.  Nature of the data used and of any assumptions made.  Nature of the data used and of any assumptions made.  The effect, if any, of alternative interpretations on Mineral Resource estimation.  The use of geology in guiding and controlling Mineral Resource estimation.  The lactors affecting continuity both of grade and geology.  The extent and variability of the Mineral Resource expressed as length fallows urface to the upper and lower limits of the Mineral Resource.  Interpretations  The extent and variability of the Mineral Resource expressed as length fallows urface to the upper and lower limits of the Mineral Resource.  Interpretation and modelling estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation parameters and maximum distance of extrapolation parameters and maximum distance of extrapolation from data points, if a computer software and parameters used.  The assumptions made regarding recovery of by-products.  Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterization).  However the gold distribution is more cominity on whell estates where drilling is at a nominal 40 x 20 m hole spacing.  The use of historical incling provides a level of uncertainty as where drilling is at a nominal 40 x 20 m hole spacing.  The use of geology in guiding and controlling Mineral Resource estimates and maximum distance of extrapolation from data points.  The assumptions made regarding recovery of by-products.  Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterization).	Site visits	the Competent Person and the outcome of those visits.  If no site visits have been undertaken	Mr Rick Adams and Mr Mike Millad visited the property from the 4th May 2016 to 5th May 2016 to review the geology and historic mining
The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.    Estimation and modelling techniques	•	uncertainty of) the geological interpretation of the mineral deposit.  Nature of the data used and of any assumptions made.  The effect, if any, of alternative interpretations on Mineral Resource estimation.  The use of geology in guiding and controlling Mineral Resource estimation.  The factors affecting continuity both of	<ul> <li>however the gold distribution is more complex. Cube believes that the continuity of mineralisation and volume controls are well established where drilling is at a nominal 40 x 20 m hole spacing.</li> <li>The use of historical drilling provides a level of uncertainty as the company cannot validate the QAQC data and downhole survey data. As such at several locations through the deposit the company has twinned historical holes to confirm results and location.</li> <li>The close spaced (possibly RC) grade control drilling and mining pit floor exposure has allowed a detailed re-evaluation of the geological controls on mineralisation by EXG. The new interpretation of these controls impacts the estimation of the Mineral Resources and has</li> </ul>
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.  • The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.  • The assumptions made regarding recovery of by-products.  • Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterization).  based on exploration (40m x 20m) and GC (3m x 5m) drill hole data. The wireframes were constructed on a sectional basis using the Surpac software package.  • A low grade "waste" domain was also modelled around the main mineralisation domain to the extents of the available drill data.  • The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.  • The assumptions made regarding recovery of by-products.  • It was evident that the estimation domains contained a limited numbe of outlier gold values, necessitating the use of gold grade top cuts to mitigate estimation risk. The highly positively skewed gold distributions mean that conventional linear estimation methods, such that the estimation risk. The highly positively skewed gold distributions mean that conventional linear estimation methods, such the waster domain was also modelled around the main mineralisation domain to the extents of the available drill data.  • It was evident that the estimation domains contained a limited numbe of outlier gold values, necessitating the use of gold grade top cuts to mitigate estimation risk. The highly positively skewed gold distributions mean that conventional linear estimation of the database. Composites of gold assay values were there of t	Dimensions	Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower	<ul> <li>The main body of mineralisation extends approximately 300m along strike (NNW-SSE- Azi 335 degrees), an average of 40m across strike (ENE-WSW) and 150m in elevation. Mineralisation is present at surface and is exposed on the historic pit floor and walls from previous</li> </ul>
● The following criteria were considered when choosing gold grade to	modelling	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.  The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.  The assumptions made regarding recovery of by-products.  Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine	<ul> <li>based on exploration (40m x 20m) and GC (3m x 5m) drill hole data. The wireframes were constructed on a sectional basis using the Surpac software package.</li> <li>A low grade "waste" domain was also modelled around the main mineralisation domain to the extents of the available drill data.</li> <li>Drill intervals falling within the wireframed estimation domains were coded in the database. Composites of gold assay values were then generated using the Surpac™ "best-fit" method. On the basis of sample size, selectivity assumption (2mE-W x 5mN-S x 2.5mRL) and selected estimation methodology, Cube chose to use 1m downhole composites for this estimation.</li> <li>It was evident that the estimation domains contained a limited number of outlier gold values, necessitating the use of gold grade top cuts to mitigate estimation risk. The highly positively skewed gold distributions mean that conventional linear estimation methods, such as Ordinary Kriging ("OK") are very likely to produce over-smoothed block grade estimates. For this reason, it was decided to undertake grade estimation using the non-linear Localised Uniform Conditioning ("LUC") method.</li> </ul>

The coherence and stability of the upper tail of the In the case of block model interpolation, gold grade distribution: the block size in relation to the average Visual inspection of the spatial location of outlier sample spacing and the search employed. 0 Sensitivity tests to gauge the effect of various top cuts Any assumptions behind modelling of 0 on mean gold grade; selective mining units. The statistics show that there is not a large reduction in mean grade (approx. -7%) following top cutting of the main mineralisation domain (100). Cube therefore does not consider the use of top cutting to be a material risk with respect to the estimation. The LUC estimates were implemented using the Isatis® software Any assumptions about correlation between variables. package before being transferred into a Surpac™ block model. No consideration has been made of by-products. Description of how the geological interpretation was used to control the resource estimates. A number of check estimates have been undertaken by Cube as part of the validation steps. Firstly, a comparison of an OK grade control Discussion of basis for using or not using model, based only on the tight 3m x 5m grade control drilling, to an LUC model undertaken using only the exploration drill data was grade cutting or capping. undertaken within the volume covered by GC drilling (now mostly mined out). Results indicate that the LUC model based on only exploration data reconciles to the OK GC model to within 9% of contained metal at 0.6g/t and 0.9g/t Au cut-offs. This comparison The process of validation, the checking gives some indication as to how the LUC method might perform in the process used, the comparison of model data to drill hole data, and use of remaining in-situ ground, which is largely informed by exploration data only. The final reported LUC model, however, is based on all available reconciliation data if available. data (ie. both exploration and GC drill data). Inverse Distance Squared (ID2) check estimates were undertaken for comparison to both the LUC model based on only the resource data, and also for the reported LUC model based on resource and GC data. This comparison demonstrated a good level of agreement between global mean ID2 and LUC grades. The LUC model was also validated by comparison of the block estimates to the informing composite data: Global mean undeclustered and declustered composite grades were compared to the block estimates. Agreement was good. Semi-local comparison of undeclustered declustered composite grades to block estimates was undertaken using swath plots by northing and RL slices. Observed agreement was good. Visual 3D comparison of raw assay grades to LUC block estimates revealed good spatial correspondence. Block size for gold grade estimation was chosen in consultation with EXG and with due regard to data spacing, orebody geometry, and practical mining considerations. The estimation panel size used was 6mE-W x 10mN-S x 5mRL. An SMU block size of 2mE-W x 5mN-S x 2.5mRL was chosen (no rotation) for use in the localisation process. This SMU block size corresponds exactly to the current block size for grade control modelling and mining selection at the nearby and currently active Zoroastrian Central pit, conforms to the mining flitch height and is elongated in the approximately the same direction (north-south axis) as the trend of the mineralised envelope at Bulletin South. While the data spacing in areas other than the grade control drilled volume would be considered too wide for such a small block size if conventional linear estimation methods were used, Cube has used the LUC method, which is intended specifically for estimating the distribution grade of smaller blocks. Moisture Whether the tonnages are estimated on a Tonnages were estimated on a dry basis. dry basis or with natural moisture, and the method of determination of the moisture content. Cut-off The basis of the adopted cut-off grade(s) The selection of mineralised domains has used geological factors parameters such a logged quartz and sulphides in conjunction with a 0.2 to 0.3g/t or quality parameters applied. Au cut off which represents the mineralised shear modelled domains. The MR has been reported above a 0.6g/t Au cut-off. This has been chosen to allow the application of modifying factors for the estimation of Mineral Reserves which indicate an economic cut-off of 0.9 to 1g/t

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Mining factors or assumptions	<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> <li>This MRE has been undertaken on the assumption of open pit mining methods, the selection of SMU size was based on the scale of mining methods, the selection of SMU size was based on the scale of mining methods, the selection of SMU size was based on the scale of mining methods, the selection of SMU size was based on the scale of mining methods, the selection of SMU size was based on the scale of mining methods, the selection of SMU size was based on the scale of mining methods, the selection of SMU size was based on the scale of mining methods, the selection of SMU size was based on the scale of mining methods, the selection of SMU size was based on the scale of mining methods, the selection of SMU size was based on the scale of mining methods, the selection of SMU size was based on the scale of mining methods, the selection of SMU size was based on the scale of mining methods, the selection of SMU size was based on the scale of mining methods, the selection of SMU size was based on the scale of mining methods, the selection of SMU size was based on the scale of mining methods, the selection of SMU size was based on the scale of mining methods, the selection of SMU size was based on the scale of mining methods, the selection of SMU size was based on the scale of mining methods, the selection of SMU size was based on the scale of mining methods.</li> </ul>
Metallurgical factors or assumptions	<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 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.</li> <li>Metallurgical testwork was conducted by ALS Global, on one sample of representative material, in their Perth laboratory. Overall cyanide leaching of Au in a 24 hour period was 98.2% with 77% being recovered by gravity.</li> </ul>
Environmental factors or assumptions	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.  There are no existing environmental issues concerning the extraction or disposal of waste or tailing material known to Cube.  There are no existing environmental issues concerning the extraction or disposal of waste or tailing material known to Cube.
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>There are limited sources of relevant experimental bulk density data consisting of 14 determinations from 2015 EXG DD.</li> <li>These determinations are all on competent rock both within the mineralised porphyry and surrounding waste mafic rocks.</li> <li>On balance Cube believe that there are sufficient data to allow the assignment of average values to the MRE block model but not enough to allow a spatially representative estimation of bulk density. Cube have used assumed bulk density values based on the interpreted weathering surfaces.</li> </ul>
	Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.

#### Classification The basis for the classification of the The geological model and continuity of the mineralised domain is Mineral Resources into varying currently well understood due to the GC drilling and mining exposure confidence categories. of the mineralised lodes. The MRE has been validated by "ground truth" methods whereby an estimate using only resource exploration drilling on a 40x20m collar spacing has been compared to a volume Whether appropriate account has been taken of all relevant factors (i.e. relative estimated by close spaced GC drilling. The results of this comparison confirm that the deeper MR areas estimated outside the grade control confidence in tonnage/grade estimations, reliability of input data, confidence in volumes can be expected to be representative of what will be defined continuity of geology and metal values, quality, quantity and distribution of the for mining by the GC data to within +-10% contained metal. The MRE has been classified as Measured, Indicated and Inferred data). based on the assessment of geological continuity, sample representivity and spacing and geostatistical summary parameters Whether the result appropriately reflects derived from the variogram models. the Competent Person's view of the Mineralisation classified as Measured is within the primary porphyry deposit. domain with an average distance to sample data of 7-10m and an average slope of regression parameter of 0.72. Mineralisation classified as Indicated is within the primary porphyry domain with an average distance to sample data of 12m and an average slope of regression parameter of 0.44. Mineralisation classified as Inferred is within the primary porphyry domain or as isolated veins within the waste domain with an average distance to sample data of 18m and an average slope of regression parameter of 0.26. Inferred material has been included in the waste domain to ensure that during potential mining these smaller occurrences are grade control checked for mineable volumes. The Mineral Resource estimate appropriately reflects the view of the Competent Person Audits or The results of any audits or reviews of No independent audits or reviews have been undertaken on the Dec reviews Mineral Resource estimates. 2016 MRE Discussion of Where appropriate a statement of the The conditional simulation methodology of gold grade has been used relative relative accuracy and confidence level in to quantify potential variations in the grade, tonnes and metal for accuracy/ the Mineral Resource estimate using an portions of the estimate. The simulated outcomes at a 0.5g/t Au cutconfidence approach or procedure deemed appropriate by the Competent Person. For off demonstrate that probable variations in grade (+-14.3%), tonnes (+-5.0%) and metal (+-15.2%) are within reasonable expectations for moderate-to-high confidence. This relative accuracy summarised example, the application of statistical or geostatistical procedures to quantify the relates to a global mineral resource estimate of in-situ grade and relative accuracy of the resource within tonnes within the potential pit design. Note that the conditional stated confidence limits, or, if such an simulation cannot account for additional uncertainty due to sampling approach is not deemed appropriate, a bias, volume or density estimation. qualitative discussion of the factors that could affect the relative accuracy and The relative accuracy of the Mineral Resource estimate is reflected in the reporting of the Mineral Resource in accordance with the guidelines of the 2012 JORC Code. confidence of the estimate. The statement should specify whether it relates to global or local estimates, and, if The block model estimate is a local resource estimate which has block sizes chosen at the expected "SMU" selection size. local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.

These statements of relative accuracy and confidence of the estimate should be compared with production data, where

available.