

ASX Announcement (ASX: OBM)

30 June 2020

Ora Banda Completes Davyhurst DFS and Outlines Regional Growth Strategy

DFS confirms strong returns for technically robust Davyhurst re-start

HIGHLIGHTS:

- DFS focussed on recommencement of operations at Ora Banda's 100% owned Davyhurst Gold Project
- > Significant existing infrastructure enables rapid and low-capex path to production
- > 460,000-ounce Au Ore Reserve (6.1 Mt @ 2.4g/t Au), six deposits within 50 km of plant
- > Production target of 418koz over initial 5-year mine life based on Probable Reserve
 - average of 81 koz / year with peak of 95 koz / year
- Life of mine C1 costs of A\$1,427/oz
- Life of mine AISC of A\$1,566/oz
- Average annual free cash flow of A\$33.6M (pre-tax, at A\$2,100/oz gold price)
 - Increases to A\$68.8M (pre-tax, at A\$2,550/oz gold price)
- Pre-tax undiscounted free cash flow of A\$175M, pre-tax NPV₆ of A\$137M, and IRR of 109% (at A\$2,100/oz gold price)
 - Pre-tax NPV₆ increases to A\$290M, with 237% IRR at A\$2,550/oz gold price
- > Carried forward tax losses of A\$258M increases free cash flow in the early years
- > Pre-production capex of \$45M, with short 14-month payback period
 - Payback period reduces to 7-months at A\$2,550/oz gold price
- Mining scheduled to commence in Q4, CY2020, with first gold pour in Q1, CY2021, subject to completion of suitable financing arrangements during Q3, CY2020
- > All major approvals and permits obtained or reasonably expected to be obtained
- > Final phase development activities to commence immediately
- Strong underground Mineral Resources of 0.5 Moz Au (3.7 Mt @ 4.4 g/t Au) provides opportunity for mine-life extensions below open pit mine designs
- > Exploration programs across the Company's 1,350km² prospective landholding ongoing:
 - further resource definition drilling programs
 - follow-up drilling programs for near-mine prospects, including Riverina South
 - significant regional exploration program along 200km of prospective strike

Ora Banda Mining Limited (ASX: OBM) ("**Ora Banda**", "**Company**") is pleased to announce the results of the Definitive Feasibility Study ("**DFS**") to re-start production at its Davyhurst Gold Project, located 120km north-west of Kalgoorlie within the Eastern Goldfields of Western Australia ("**Davyhurst**" or "**Project**").



Underpinned by pre-existing infrastructure, including a conventional CIP process plant, the DFS confirms that Ora Banda can undertake a rapid and low-capital path to achieving sustainable gold production at Davyhurst.

Ore will be delivered to the process plant from a combination of open pit and underground mines all located within a 50km radius. The study demonstrates that the Project is expected to generate strong cash flows and financial returns over a 5.2-year mine life, with average estimated pre-tax annual free cash flows of A\$33.6M (A\$68.8M at A\$2,550/oz), following a 7 to 14 month payback period, further leveraged by carried forward tax-losses of A\$258M (as at 30 June 2019).

Development activities will start immediately and will focus on the final piece of refurbishment of the Davyhurst plant together with early works for mine development at both Riverina open pit and Golden Eagle underground mines. Plant commissioning is expected to commence in Q4, CY20 with first gold pour targeted for Q1, CY21.

In parallel, the Company will continue to undertake drilling programs across its highly prospective 1,350km² landholding, covering 200km of strike, focussing on:

- regional targets, for which Ora Banda has already identified a number of high priority prospects;
- follow up drilling programs on near-mine prospects, including Riverina South; and
- resource infill.

Managing Director Comment

Ora Banda Managing Director, David Quinlivan, said: "The completion of the DFS represents the culmination of an extensive 12-month work program focussed on a measured and value driven production restart at Davyhurst. The DFS confirms that the significant existing infrastructure will enable Ora Banda to pursue a rapid and low-capex path to production, with the first gold pour targeted for January 2021. The DFS also marks an important step in the Company's evolution towards its ultimate objective of unlocking the significant value we believe is held in Ora Banda's strategic and prospective landholding."



Key DFS Outcomes

Reserves reported for Waihi and Callion

Ora Banda is pleased to declare a maiden JORC (2012) Probable Ore Reserve for Waihi open pit of:

1.5 Mt @ 2.3 g/t Au for 108Koz

Ora Banda is also pleased to declare a maiden JORC (2012) Probable Ore Reserve for Callion open pit of:

0.24 Mt @ 2.6 g/t Au for 21Koz

This brings the total JORC (2012) Probable Ore Reserves for the Davyhurst Project to:

6.1 Mt @ 2.4 g/t Au for 460Koz

A Riverina underground ore reserve is not included in this DFS as it requires more time to be finalised.

Strong Economic Returns

DFS estimates for the Project show a pre-tax, free cashflow of A\$175M over a 5.2-year mine life using a A\$2,100/oz gold price. Life of mine (LOM) average annual gold production is 81koz with low C1 cost of A\$1,427/oz and all-in sustaining costs ("AISC") of A\$1,566/oz.

Metric	Unit	Base Case	Spot Case
Gold price	A\$/oz	2,100	2,550
Gold produced (LOM)	Koz	418	418
Gold produced (annual average – LOM)	Koz/yr	81	81
Gold head grade (LOM, Ore Reserve)	g/t Au	2.4	2.4
Gold recovery (LOM)	%	90.3	90.3
Pre-production capital cost (including contingencies)	A\$M	45.1	45.1
Project payback	Months	14	7
All-in sustaining costs (AISC) (LOM)	A\$/oz	1,566	1,578
Cash costs (C1) (LOM)	A\$/oz	1,427	1,427
Project free cashflow (pre-tax)	A\$M	174.6	357.8
Pre-tax NPV (6% discount rate)	A\$M	137.4	290.7
Post-tax NPV (6% discount rate)	A\$M	137.4	290.7
Pre-tax IRR	%	109.3	237.8
Post-tax IRR	%	109.3	237.8

Pre-production Capital Costs

Davyhurst benefits from substantial pre-existing infrastructure, including a 1.2 Mt/a processing plant, 172-person accommodation camp, extensive haul road network, mains power and licensed working process-water borefields, all of which are under a full care and maintenance program.

This infrastructure significantly reduces the capital required to re-commence production at Davyhurst which is set out below.



	A\$M
Processing plant – direct costs	8.7
Processing plant – indirect costs	2.6
Infrastructure (includes Tailings Storage Facility and road maintenance, site accommodation)	10.4
First fills, spare parts	2.1
Development capital expenditure	23.8
Pre-production mining costs	19.3
Pre-production capital costs	43.1
Contingency (processing plant & infrastructure)	2.0
Total pre-production capital costs	45.1

LOM Operating Costs

	Total (A\$M)	LOM (A\$/t)	LOM (A\$/oz)
Mining (including road haulage & ROM loading)	452	74.0	1,082
Processing	123	20.1	293
Site General & Administration	21	3.5	51
Cash costs (C1)	596	97.6	1,427
Royalties (at A\$2,100/oz)	22	3.6	53
Sustaining capital	1	0.2	3
Corporate & exploration (including tenement rents, rates & Mining Rehabilitation Fund)	35	5.8	84
AISC	654	107.2	1,566

A centrally located 1.2mtpa process plant will be supplied by a combination of open pit and underground mines. The study assumes power will be supplied to site via an LNG fired power station built and operated under a BOO contract. Gas fired power costs are estimated at 0.197 c/kWh, whilst diesel cost prior to rebate and GST amounts to A\$0.92/litre. All gold production from the Davyhurst Gold Project is subject to a State royalty and there are several minor third-party royalties applicable to some of the Project tenements. Royalty costs have been included where applicable.

Production Profile

Multiple production sources are expected to underpin a potential long-life mining operation at the Project, with six deposits contributing to the initial five-year mine plan, and which will be mined by a combination of conventional open pit and underground mining techniques.

The mine plan is based solely on Probable Ore Reserve contained within the six deposits as set out below.



	Ore (kt)	Grade (Au g/t)	Au (koz)
Riverina	1,400	1.8	81
Sand King	1,300	2.6	110
Missouri	1,500	2.6	130
Waihi	1,500	2.3	110
Callion	240	2.6	21
Total Open Pit	5,900	2.3	440
Golden Eagle	130	3.7	16
Total Underground	130	3.7	16
Total	6,100	2.4	460

Note: Refer to notes on Ore Reserve in Section 4.4 and Appendix 2 Section 4 of this announcement.

The ore production forecast is summarised below.

	Mined	Processed	Grade	Gold Produced	AISC
	Ore (kt)	Ore (kt)	(Au g/t)	(koz)	(A\$/oz)
First production to 30 June 2021	530	500	2.2	35	1,615
FY22	1,200	1,200	2.3	89	1,579
FY23	1,300	1,200	2.7	106	1,609
FY24	1,200	1,200	2.3	89	1,738
FY25	1,600	1,200	2.2	86	1,719
FY26 (to end of project life)	35	810	2.2	56	860
Life of Mine	6,100	6,100	2.4	460	1,566

The values in the above table have been rounded.

The first phase of mining will involve the Riverina open pit and Golden Eagle underground. Mining of the five open pits and one underground area will be carried out in phases to optimise cash flow over the life of the project. The first phase of mining will involve the Riverina open pit and Golden Eagle underground.

Riverina open pit design showing mineralised lodes (looking north-east)





Golden Eagle long section (looking east)



Once the process plant is recommissioned and ramped up to full capacity, the second phase will involve mining of the Missouri and Sand King deposits.







Sand King open pit design showing mineralised lodes (looking north)



Subsequent mining will then involve successive cutbacks at Riverina Stage 2, Waihi and Callion.

Waihi open pit design showing mineralised lodes (looking south)

Callion open pit design showing mineralised lodes (looking north-east)







Ore Production & Processing Schedules









Ore Production & Processing Schedules (Continued)





Permitting

All major approvals and permits have been obtained or are reasonably expected to be obtained in the next 2 months. Refer to Section 10 – Approvals on page 32 for further details.

Funding

Ora Banda's Board has approved the immediate commencement of the first phase of development activities, which will be funded by the Company's current cash reserves.

Ora Banda will consider financing the remaining pre-production capital and ongoing exploration costs via an equity capital raising of up to A\$55 million, with the option of a stand-by debt facility. The Company is confident that the Project will be able to be financed on attractive terms given the relatively low capital requirement and expected short time frame to first production. Ora Banda has continued to advance discussions with interested financiers and has made good progress with significant preparation already underway for the formal financing process that is expected to be completed in Q3, CY20.

Next steps: Optimisation and contract negotiations

The company plans to continue optimising the DFS over the next several months with a view of refining its plans, including trade off studies and inclusion of the latest technical information. Preparations for a competitive tender process for contract mining is underway and is expected to be finalised by Q1 FY 2021. Discussions with GR Engineering in relation to the plant refurbishment are in final stages and expected to be concluded Q1 FY 2021.

Ongoing Exploration Programs

In parallel with the final phase of project development activities, Ora Banda will continue to undertake drilling programs across its highly strategic and prospective 1,350km² landholding covering 200km of strike.

Exploration activities will be undertaken in parallel across three key areas. The Davyhurst Gold Project (inclusive of Mt Ida) has a total mineral resource of 23.7 Mt @ 2.8 g/t Au for 2.1 Moz of contained gold. This includes underground mineral resources defined beneath existing open pits and these areas remain infill drilling targets. The Company intends to increase its regional exploration program, testing a number of prospective targets within its 1,350km² landholding.

Resource Definition and Upgrade

Ora Banda will continue to focus on infill drilling that seeks to upgrade existing resources.

Near Mine Prospects – Riverina South

Follow-up drilling is ongoing and will continue at near-mine prospects, including Riverina South that adjoins the southern end of the Riverina open pit.

Regional Exploration

Regional exploration programs are being planned for which Ora Banda already has identified several high priority targets, including well-defined but poorly tested prospect-scale gold occurrences. Whilst consolidation of the tenements comprising Ora Banda's landholding occurred in 2007, no coherent



exploration effort has yet been undertaken across the area. Priority targets include Flame, Young Australian/Peach Tree, Missouri and Golden Eagle.

Additional Information

A summary of the key information material to the rep<mark>orted Ore Reserve and D</mark>FS production metrics is provided below and is followed by Appendix 2 (JORC Code 2012 Table 1 – Sections 1 to 4).



DEFINITIVE FEASIBILITY STUDY DETAILS

1 PROJECT DESCRIPTION

The Company is the owner of the Davyhurst Gold Project ("**Davyhurst Project**") in the highly prospective, Tier 1 gold mining province of Eastern Goldfields in Western Australia. The Davyhurst Project (inclusive of Mt Ida) has a total Mineral Resource of 23.7 Mt at a grade of 2.8 grams per tonne gold for 2.1 million ounces of contained gold and hosts many other highly prospective exploration and gold development targets.

The Davyhurst Project is located 120 km northwest of the major gold mining hub of Kalgoorlie in Western Australia and comprises 111 granted individual mining tenements covering a combined area of 1,350 km². These tenements extend for more than 200 strike kilometres from north to south along the highly prospective Mt Ida Fault and Zuleika Shear system. Substantial infrastructure including a 1.2 Mt/a processing plant, 172 person camp, extensive road network, mains power and licensed working borefields exist at Davyhurst and these facilities are currently being preserved on a full care and maintenance program.

The various ore deposits that will feed the Davyhurst Processing Plant have estimated Ore Reserves of 6.1 million tonnes of ore grading 2.4 grams per tonne for 460,000 ounces of contained gold providing over five years of mine life. Mining will be undertaken by both conventional open cut and underground methods. The primary underground mining method will be sub-level open stoping using up-hole benching.



Figure 1 - Davyhurst Project Location Map Highlighting Key Development Projects



Average annual mine production of 1.2 Mt/a is expected to be achieved in April 2021 following a three month ramp up period. Ore will be trucked via a combination of private and public Level 4 – RAV's (Categories 9-10) rated haul roads from the five mine sites to a central 1.2 Mt/a processing facility located at Davyhurst. A conventional gold three stage crushing circuit followed by a Carbon in Pulp ("CIP") processing plant will produce gold doré bars. Metallurgical testwork has shown that overall gold recovery will be 90.3%. Gold doré bars will be transported to the Perth Mint for refining and sale.

The operation will run 24 hours a day and be manned by a workforce that will work 12 hours per day on a range of roster schedules. Accommodation will be provided on site in the accommodation village.

This DFS demonstrates optimised cash flows by scheduling production from six distinct mining operations, namely, Riverina, Missouri, Sand King, Waihi and Callion open pits and the Golden Eagle underground. The location of these operations is shown in Figure 1 above.

The mine design physicals and associated costs for these mines feed into individual mine models. The outputs from each mining model then form part of an integrated mining and processing plan to optimise mining and processing schedules to deliver annual average throughput of 1.2 Mt/a.

The DFS has adopted a contractor model for mining costs. The contractor model has lower capital intensity for a 5-year operation than an owner-mining model and was selected as the most efficient and lowest risk operational approach.

2 PROJECT TEAM

This DFS has been prepared jointly by OBM and GR Engineering Services Ltd (**GRES**) with other parties undertaking respective workstreams.

3 GEOLOGY AND MINERAL RESOURCES

3.1 Geology

Ora Banda has undertaken extensive resource development activities over the last 12 months on five advanced projects, namely Riverina, Waihi, Siberia (includes Sand King & Missouri deposits), Callion and Golden Eagle. This includes over 37,000 metres of resource definition drilling and other associated technical (metallurgical & geotechnical) drilling.

The Davyhurst-Mt Ida project area is located on the western branch of the Norseman-Wiluna Belt. The project straddles the boundary between the Kalgoorlie Terrane (~2.7Ga) of the Eastern Goldfields Province and the Barlee Domain (~3.0Ga) of the Southern Cross Province. The boundary between the provinces is defined by the crustal-scale Ida Lineament, a deep, mantle tapping crustal structure that trends north to NNW and dips steeply to the east. The project also includes portions of the Zuleika Shear which separates the Coolgardie and Ora Banda Domains within the Kalgoorlie Terrane.

The Barlee Domain, to the west of the Ida Lineament, comprises a sequence of banded iron formation ("BIF"), shale, chert, and basalt, all poorly outcropping against basement granites. These lower units are overlain by a thick monotonous sequence of tholeiitic basalt to the east to the Ida Lineament.



The Ida Lineament is a poorly defined structure but is commonly interpreted to be along the western contact of the western most ultramafic unit as defined by aeromagnetics. East of the Ida Lineament, greenstones of the Coolgardie and Ora Banda Domains consist of sedimentary and felsic volcanoclastic rocks to the west, and mafic to ultramafic volcanic and felsic rocks to the east. The project is generally bounded by basement granite and gneiss terrane. Internal to the greenstone belt, there are several granite intrusions of various ages. The most prominent of these granites is the Ularring Granite, located midway between the Davyhurst and Riverina area.

There are two alteration events observed, an initial pervasive greenschist to lower amphibolite alteration event related to metamorphism, and a later hydrothermal alteration event related to shearing. The shears have acted as conduits to hydrothermal fluids causing localised alteration and gold mineralisation. Host lithologies include extrusive and intrusive mafic to ultramafic rocks, finegrained sedimentary rocks and felsic volcanic and volcaniclastic rocks. Alteration associated with gold mineralisation is commonly an assemblage of minerals namely biotite-carbonate-feldsparpyrrhotite-pyrite. The mineralisation is within distinctive alteration haloes, generally around quartz vein arrays. Thickness of the alteration zones varies from centimetres to several metres. A sharp transition is evident between altered, mineralised basalt and unaltered, unmineralised basalt (Missouri and Sand King). A more gradational contact between mineralisation and barren host rocks is evident at the other deposits (Riverina, Waihi, Callion and Golden Eagle).

Weathering effects are highly variable, extending to shallow depths at Waihi (<5 m) to average depths of 40 m to 50 m at Riverina. Generally, the Davyhurst weathering profile can be considered shallow. Weathering effects have resulted in apparent re-mobilisation of gold in some deposits. At times gold depletion in highly oxidised areas can be observed along with zones of potential supergene gold enrichment, generally toward the base of oxidation.

3.2 Mineral Resources

All Mineral Resource Estimates undertaken by OBM have been classified and reported in accordance with the 2012 Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (2012 JORC Code) and is summarised in Table 3.1 with further details provided in Appendix 1.

The open pit in situ Mineral Resources for each deposit, except Callion, are reported from the Localised Uniform Conditioning (LUC) models at a 0.5 g/t cut-off and above an optimised shell based on assumed recoveries, costs and a gold price of A\$2,400 per ounce. The Callion deposit is reported from the OK model at a 0.5 g/t cut-off and above an optimised shell based on assumed recoveries, costs and a gold price of A\$2,400 per ounce. Pit shells have been used as the limiting basis for reasonable expectations of the estimated blocks being a viable open pit option at some time in the future. The 0.5 g/t cut-off grade is considered a realistic figure based on generalised current open pit mining and processing costs. All blocks outside the pit shell are reported from the kriged block models at a 2 g/t cut-off to represent potential extraction by underground mining methods. The underground portion of the resources is not reported from the LUC models as the SMU block size implies a mining selectivity that could not be achieved by underground mining methods. The reported blocks in each Mineral Resource Estimate (MRE) have been limited to those within the optimised shell, above 0.5 g/t and below the optimised shell, above 2 g/t. Mineral Resources included in the DFS are reported in Table 3.1.



LUC resource estimates were completed by OBM with specialised geostatistical guidance and support from mining industry consultants, CSA Global Pty Ltd (**CSA**). OBM defined the parameters required for Ordinary Kriged (**OK**) estimates, including domain selection, gold assay composites and estimation parameters. OBM provided CSA with the input composites, OK block models for both the panel/parent and SMU scale estimates, and all adopted estimation parameters and domaining selections. This ensured that the same parameters could be carried through to generate valid LUC estimates for each of the deposits. LUC estimates are conditioned to the OK panel estimates, preserving the metal content.

Golden Eagle was estimated using Ordinary Kriging, with parameters suited to underground mining.

DEDOCIT		RESOURCE	CUT-OFF	MEAS	SURED	INDI	CATED	INFE	RRED	TO	TAL MATE	ERIAL
DEPOSIT		MODEL	GRADE	('000t)	(g/t Au)	('000oz.)						
RIVERINA	Open Pit	LUC	0.5	116	1.8	2,694	1.8	183	3.0	2,993	1.9	183
	Underground	ОК	2.0			226	5.7	502	6.1	728	5.9	139
	TOTAL			116	1.8	2,920	2.1	685	5.3	3,721	2.7	322
WAIHI	Open Pit	LUC	0.5			1,948	2.4	131	2.9	2,079	2.4	159
	Underground	ОК	2.0			188	3.7	195	4.0	383	3.8	47
	TOTAL					2,136	2.5	326	3.5	2,462	2.6	206
SAND KING	Open Pit	LUC	0.5			1,252	3.4	128	3.3	1,380	3.4	150
	Underground	ОК	2.0			438	3.7	698	3.8	1,136	3.7	136
	TOTAL					1,690	3.5	826	3.7	2,516	3.5	286
MISSOURI	Open Pit	LUC	0.5			1,460	3.4	17	3.5	1,477	3.4	160
	Underground	ОК	2.0			364	3.4	258	3.4	622	3.4	68
	TOTAL					1,824	3.4	275	3.4	2,099	3.4	227
GOLDEN EAGLE	Underground	ОК	2.0			247	4.1	146	3.4	393	3.9	49
CALLION	Open Pit	ОК	0.5			241	3.7	28	1.6	269	3.5	30
	Underground	ОК	2.0			255	6.0	156	5.5	411	5.8	77
	TOTAL					496	4.9	184	4.9	680	4.9	107
RESOURCE TO	TALS			116	1.8	9,313	2.9	2,442	4.1	11,871	3.1	1,198

Table 3.1: Mineral Resources Included in the DFS

Notes

- Missouri, Sand King, Riverina, Waihi, Callion & Golden Eagle Mineral Resources have been updated in accordance with all relevant aspects of the JORC code 2012, and initially released to the market on 15 December 2016 & 26 May 2020 (Missouri), 3 January 2017 & 26 May 2020 (Sand King), 2 December 2019, 26 May 2020 & 4 June 2020 (Riverina), 4 February 2020 (Waihi), 15 May 2020 & 29 June 2020 (Callion) & 8 April 2020 (Golden Eagle).
- 2. The Riverina, Waihi, Sand King, Missouri and Callion Open Pit Mineral Resource Estimates are reported within a A\$2,400/oz pit shell above 0.5g/t. The Riverina, Waihi, Sand King, Missouri, Callion and Golden Eagle Underground Mineral Resource Estimates are reported from material outside a A\$2,400 pit shell and above 2.0 g/t.
- 3. Mineral Resources quoted are inclusive of Ore Reserves
- 4. The values in the above table have been rounded.

4 MINING AND ORE RESERVES

The feasibility study evaluated six individual mining locations: five open pits and one underground. The evaluation was based on the convertible Mineral Resources described in Section 3. The study considered technical and operational aspects of each as well as project specific costing sourced from the industry within the last six months. A mine plan was developed considering operational readiness of the various sites and the ability to deliver a strong cash flow.



4.1 Open Pit

4.1.1 Mining Method

All open pits within the Davyhurst Gold Project will be mined using selective mining techniques. The alteration associated with the gold mineralisation is visually identifiable, facilitating the enabling the proposed method to be adopted.

The mining fleet will comprise, top-hammer blast hole drills, 120 t or 200 t class excavators and 90 to 100 t class rigid body dump trucks, as well as supporting ancillary fleet. This size and type of equipment is commonly used by owners and contractors alike throughout the Western Australian goldfields. All pits will be drilled and blasted on 5 m benches, with the excavators operating on the full bench height of 5 m in waste and nominal flitch heights of 2.5 m in ore. Ore will be hauled from the pit to a designated Mine-Ore-Pad ("MOP") stockpile adjacent to each pit. From here, road trains will transport the ore to the Run-of-Mine ("ROM") pad adjacent to the Davyhurst processing plant.

Underground voids exist within the proximity of the Riverina and Callion open pits. An effective voids management plan will be developed to safely manage mining through these areas. Surveying and probe drilling will be used to properly locate the voids and they will be backfilled from a safe location prior to mining.

Waihi requires tailings to be re-mined. It is proposed that this material will be mined conventionally with consideration given to the trafficability of tails. The excavated material will be co-disposed on surface with waste rock mined concurrently from the pit. The tailings management plan is still under development and is still to be approved by government regulators.

Mining Department personnel will consist of management, technical staff and operations with a mix of both local and FIFO personnel. Within the first 12 months the total mining workforce will ramp up to around 130 persons onsite at any time including contractors, increasing to a peak of around 140 later in the project. The number of personnel will vary depending on the mining phase.

Mine office and workshop facilities will be provided by the contractor for the mining operation at each location together with fuel storage and wash down facilities.

4.1.2 Dilution Modelling

For Riverina, Missouri, Sand King and Waihi, modifying factors for the open pits were determined using the LUC Mineral Resource models described in Section 3. The SMU blocks within the models have a width of 2.0 m, strike length of 5.0 m and vertical extent of 2.5 m. The visual nature of the mineralisation lends itself to selective mining thereby allowing separation of waste from ore at the contact, resulting in lower dilution and loss factors when estimating the Ore Reserve. This selectivity is not reflected in the diluted LUC grade of the resource model's SMU; hence, mining dilution was modelled by factoring the grade for a dilution skin reflective of the proposed mining method. Based on lode boundary analysis conducted during preparation of the MRE, SMU block grades were factored down to allow for dilution thickness based on the "hardness" of their boundaries. Dilution skins of approximately 0.5 m were applied at Missouri and Sand King and 0.25 m at Riverina, Waihi and Callion, owing to their softer boundary condition and the dilution inherent in the lode wireframe. Dilution factors were determined using the unconstrained global resource to approximate the effective required dilution skin. This approach accounts for the greater selectivity that can be achieved by optimising the digging orientation to the ore blocks. The technique accounts for dilution



at a localised scale and the resultant model was used as a diluted model in the pit optimisation analysis.

For Callion, the modifying factors were estimated using an Ordinary Kriged Mineral Resource model. The model was sub-celled to conform to the mineralisation wireframe. Dilution for the Callion pit optimisation was modelled using the expanded wireframe technique. The wireframes were expanded by 0.3 m in all directions. Each block in the model was coded with a proportion inside the expanded wireframes. The diluted grade was determined by reporting the average grade of each lode in increments of 2.5 mN by 2.5 mRL for the full width of the lode. These diluted grades were then written into the model for use in the pit optimisation.

The equivalent global dilution within each of the pits is given in Table 4.1.

Table 4.1: Global Dilution

Deposit	Global Dilution
Riverina	25%
Sand King	34%
Missouri	50%
Waihi	14%
Callion	27%

4.1.3 Cut-off Grade

The open pit Ore Reserve was estimated within the mining envelope using incremental cut-off grades determined for each weathering domain for each deposit. The cut-off grades ranged from 0.54 to 0.69 g/t Au depending on location and domain. These cut-offs were applied to diluted grades within the pit design envelope. A summary of the cut-off grade and inputs are given in Table 4.2.

Table 4.2: Parameters used to derive	cut-off grades fo	or the open pit mines
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Deposit	Domain	Gold Price	. Royalties & Smelter Charges	Process Recovery	Grade control	Ore haulage	Crusher loading	Processing cost	Site G&A and Third Party Royalty	Total Incremental Cost	Cut-off grade
		A\$/oz	A\$/oz	%	A\$/t	A\$/t	A\$/t	A\$/t	A\$/t	A\$/t	g/t
Riverina	Oxide	2100	\$44.55	95%	\$0.93	\$9.27	\$1.17	\$24.92	\$5.17	\$41.46	0.66
	Trans	2100	\$44.55	95%	\$0.98	\$8.98	\$1.14	\$24.92	\$5.17	\$41.19	0.66
	Fresh	2100	\$44.55	95%	\$1.66	\$8.80	\$1.11	\$24.92	\$5.17	\$41.65	0.66
Sand King	Oxide	2100	\$44.55	94%	\$0.93	\$7.55	\$1.17	\$23.80	\$5.37	\$38.82	0.62
	Trans	2100	\$44.55	92%	\$1.12	\$7.31	\$1.14	\$23.80	\$5.37	\$38.74	0.64
	Fresh	2100	\$44.55	85%	\$1.18	\$7.16	\$1.11	\$23.80	\$5.37	\$38.62	0.69
Missouri	Oxide	2100	\$44.55	94%	\$0.63	\$7.55	\$1.17	\$23.80	\$5.37	\$38.52	0.62
	Trans	2100	\$44.55	92%	\$0.76	\$7.31	\$1.14	\$23.80	\$5.37	\$38.38	0.63
	Fresh	2100	\$44.55	92%	\$1.27	\$7.16	\$1.11	\$23.80	\$5.37	\$38.71	0.63
Waihi	Oxide	2100	\$44.55	94%	\$0.93	\$2.28	\$1.17	\$23.80	\$5.37	\$33.55	0.54
	Trans	2100	\$44.55	92%	\$0.98	\$2.21	\$1.14	\$23.80	\$5.37	\$33.50	0.55
	Fresh	2100	\$44.55	90%	\$1.66	\$2.16	\$1.11	\$23.80	\$5.37	\$34.10	0.57
Callion	Oxide	2100	\$44.55	91%	\$0.93	\$3.95	\$1.17	\$23.39	\$5.57	\$35.01	0.58
	Trans	2100	\$44.55	91%	\$0.98	\$3.83	\$1.14	\$23.39	\$5.57	\$34.91	0.58
	Fresh	2100	\$44.55	90%	\$1.66	\$3.75	\$1.11	\$23.39	\$5.57	\$35.48	0.60



4.1.4 Pit Optimisation

Pit optimisations were performed on each of the deposits to determine approximate economic mining envelopes. Geovia Whittle software was used to determine pit limits by applying economic and operational modifying factors to the diluted Mineral Resource models and standard Lerchs-Grossman techniques.

Pit slope parameters were derived from geotechnical analysis following site investigation, review, and logging of core. Parameters were provided for each of the weathering domains at each of the deposits (i.e. oxide, transition and fresh). Sand King slope parameters also included provision for the ultramafic domain located in the northeast region of the pit. Where the excavation encroached on waste landforms stable slope parameters were used as a maximum. Adjustments were made to the pit slope angles to allow for in-pit ramps based on the fleet described in Section 4.1.1. Double lane ramp widths of 25 m and single lane ramp widths of 15 m were allowed for in the base of the pit. The pit slope parameters applied in the optimisation are given in Table 4.3.

Deposit		Ν	E	S	W
Riverina	Oxide	37.8	37.8	37.8	34.8
	Trans	43.7	35	43.7	43.7
	Fresh	52.5	52.5	52.5	40.6
Sand King	Oxide	37.8	37.8	20.2	37.8
	Trans	45.2	45.2	30.8	36.9
	Fresh	56.3	54.3	47	41.8
Sand King - Ultramafic	Oxide	37.8	37.8	37.8	37.8
	Trans	40.9	40.9	40.9	40.9
	Fresh	48.8	48.8	48.8	48.8
	WLF	26.6	26.6	26.6	26.6
Missouri	Oxide	18.3	42.1	42.1	42.1
	Trans	30.8	45.2	45.2	35.5
	Fresh	51.4	48.4	44.4	44.4
	WLF	14.9	14.9	14.9	14.9
Waihi	Oxide	32.6	32.6	32.6	32.6
	Trans	35.3	35.3	35.3	35.3
	Fresh	46.0	46.0	46.0	46.0
	WLF	14.9	14.9	14.9	14.9
Callion	Oxide	29.7	37.8	34.8	37.8
	Trans	33.7	43.7	40.3	43.7
	Fresh	40.6	52.5	45.2	52.5
	WLF	21.9	21.9	21.9	21.9

Table 4.3: Pit Slope Parameters

A nominal mining recovery of 95% was applied (5% ore loss) in the optimisation. Mining dilution was inherent in the model, using the skin dilution methods described above

Mining costs were derived from contractor-supplied pricing for a scope specific to the project. The scope included drill, blast, load and haul as well as provision for waste landform rehabilitation. Cost regressions were derived from the cost profiles provided by the contractors and applied in the model on and incremental cost by depth basis. The costs also included provision for the OBM mining team overheads.

The average mining costs for the selected pit shells, including rehabilitation, are given in Table 4.4.



Table 4.4: Average mining cost

Deposit	Ave Mining Cost (\$/t)
Riverina	\$4.37
Sand King	\$4.56
Missouri	\$5.06
Waihi	\$4.44
Callion	\$3.86

Ore haulage costs were derived from contractor budget pricing received in 2020 for a scope of work specific to the project. These costs are stated in Table 4.2.

Processing costs were based on preliminary estimates by GR Engineering Pty Ltd. These costs are stated in Table 4.2.

General and Administration costs were based on a preliminary estimate approved by OBM senior management. These costs are stated in Table 4.2.

State Royalties and smelter charges were allowed for as selling costs. These costs are stated in Table 4.2.

Processing recoveries were based on available test work or assumptions provided by OBM's metallurgical consultant, based on values consistent with typical industry values. These recoveries are stated in Table 4.2.

Pit shells were adjusted for a minimum mining width of 20 m to allow safe working room around the existing pit excavations and pit floors. Pit shells were selected based on maximum NPV following consideration of all the above factors and contemplated mining on a single stage basis. Where pit staging was proposed the pit shell selection considered maximum cash flow.

4.1.5 Pit Design

From the pit shells, practical mining shapes were developed and formed the basis of the Ore Reserve estimate. The pit designs observed the preliminary slope parameters used in the pit optimisation. Double and single lane ramps were located to provide practical access to the lower levels of the pit by the contractor's fleet.

Minimum mining bench widths of 20 m were allowed for on all walls mined adjacent to existing excavations. Final drop cuts were designed at 15 m minimum mining width and "good-bye" cuts allowed for at the base of each pit to a depth of 5 m. The pit inventories reconciled to within 12% or less of the pit shells.

The designs developed for the feasibility study are shown in Figure 4.1.



Figure 4.1: Feasibility Ultimate Pit Designs



4.1.6 Waste Landforms

Approximately 79 Mt of the waste material will be generated during open pit and underground mining operations. Whilst some of this material will be used in general construction of facilities such as MOP pads, haul roads and abandonment bunding, the remaining waste will be placed in surface waste landforms. These will be constructed progressively as the project develops. Prior to their construction, the footprint of the landforms will be cleared and topsoil removed. The topsoil will be either placed directly onto available waste landforms that have reached their final design formation or stockpiled for use in later rehabilitation.



4.2 Underground

4.2.1 Mining Method

Golden Eagle is a brownfields project. The mining method proposed for Golden Eagle is narrow-vein long hole open stoping using up-hole-benching techniques. This method has been successfully used at Golden Eagle in the past.

Capital and ore drive development will be mined using a conventional mining fleet and ore mining will be directly supervised by OBM personnel. An underground contractor will provide the mining fleet that includes a twin boom jumbo, 50 t dump truck(s) and an appropriately sized underground loader. Stope production will use 64 mm diameter blast holes and conventional explosives and blasting techniques.

4.2.2 Dilution Modelling

Modifying factors were applied to the underground Mineral Resource to estimate the Ore Reserve for Golden Eagle. Stope optimisation techniques were performed on the resource model using a minimum practical stope width of 0.7 m and a 0.3 m unplanned dilution skin applied to both the hanging wall and footwall. Only indicated Mineral Resources were contemplated. A nominal provision for unplanned dilution of 5% was also included as a contingency. The global dilution was estimated to be 34%. A nominal ore loss factor of 5% was also applied.

4.2.3 Cut-off Grade

The cut-off grade was estimated using contractor pricing provided in April 2020, based on a preliminary scope of work.

The Ore Reserve was estimated using a stope cut-off grade of 2.7 g/t Au. The cut-off grade allows for all stope activities including drill, blast, load and haul, as well as the downstream costs such as ore haulage, processing, selling costs and smelter charges.

It also includes provision for ore drive development and slotting for stope establishment. In addition, an incremental cut-off grade of 0.7 g/t Au was applied to ore drive development on a cut by cut basis. Parameters for the cut-off grade estimate are given in Table 4.5.

Table 4.5: Golden Eagle cut-off grade parameters

Parameter	Units	Cut-off Value
Development and stoping	A\$/t	118.22
Mine overheads	A\$/t	13.33
Haulage, processing and site G&A	A\$/t	34.55
Total unit costs	A\$/t	166.1
Gold Price	A\$/oz	2,100
Process Recovery	%	92
Smelter Charge	A\$/t	0.48
Transport and security	A\$/t	2.09
Royalties	%	2.5
Cut-off Grade	g/t	2.7

Stope optimisation of the Indicated Mineral Resource was used to determine practical mining shapes. These shapes were used to develop a mine layout. After completing the design, each level was



evaluated to ensure it was above the breakeven cost including all capital development and associated infrastructure.

4.2.4 Underground Design

The Golden Eagle underground will extend the existing workings to undeveloped stoping areas. In addition to ore drives and stopes, provision was made for declines, ventilation drives, stockpiles, return airways and escapeways.

Given the ground conditions at Golden Eagle, all existing excavations are expected to be reused following a programme of re-support where required. The orebody was previously accessed at 20 m level intervals, resulting in 15 m pillars between sub-levels. Future planned stopes will be mined using the same underhand sub-level open stoping method employed previously. Pillars will be left at designated intervals to maintain void stability.

A Ground Control Management Plan (GCMP) was developed, during previous mining activities, by an independent geotechnical consultant. Recommendations from the GCMP were adopted in the mine design.

The design extends the existing workings to as yet undeveloped stoping areas. In addition to ore drives and stopes, provision was made for declines, ventilation drives, stockpiles, return airways and escapeways. The proposed Golden Eagle underground layout is shown in Figure 4.2.

Figure 4.2: Golden Eagle underground layout





4.3 Mining Schedule

A summary of key physical metrics for the Davyhurst Project, by mining location, is set out in Table 4.6.

Table 4.6: Key Physical Metrics by Location¹

Key Physical Metrics by Location ¹					
Location	Waste (Mt)	Strip Ratio (w:o)	Ore (kt)	Grade (Au) (g/t)	Gold (koz)
Open Pit					
Riverina	13.3	9:1	1,400	1.8	81
Sand King	19.9	16:1	1,300	2.6	110
Missouri	16.7	11:1	1,500	2.6	130
Waihi	24.1	16:1	1,500	2.3	110
Callion	5.1	21:1	240	2.6	21
Total – Open Pit	79.0	13:1	5,940	2.3	445
Underground					
Golden Eagle	-		130	3.8	16
Total – Underground	0		130	3.8	16
Total	79.0		6,100	2.4	460

1. The table contains rounding adjustments to two significant figures and does not total exactly.

Based on the values in Table 4.6, an integrated mine schedule was developed to demonstrate the required production rate can be achieved to maintain feed to the process plant. Stockpiling low grade and high-grade ore was also modelled to optimise the grade processed to improve early cash flow.

The open pits were notionally scheduled using typical mining productivities consistent with the West Australian mining industry. Consideration was also given to operational constraints such as vertical advance of the pit floor and operating area. The schedule was then resource levelled based on expected excavator fleet capacity.

The underground schedule considered development and stoping activities using interlinked logic constraints and typical mining productivities consistent with the West Australian mining industry. The schedule was resource levelled for underground fleet capacities.

The scheduled developed contemplates mining of the five main open pits and one underground area being carried out in phases to optimise cash flow over the life of the project. The first phase will involve mining the Riverina open pit and Golden Eagle underground. Once the process plant is recommissioned and has ramped up to full capacity, the next phase will be implemented which involves mining of Missouri and Sand King. This will be followed in turn by successive cutbacks in the Riverina Stage 2, Waihi and Callion open pits.

Ore will be mined at a sufficient rate to supply ore to the 1.2 Mt/a plant over a 5.2-year project life. Lower grade material will be stockpiled initially to enable high grade ore to be processed as soon as possible. This will facilitate higher cash flows in the early phases of the project.

The total material movement, processing and stockpiling schedules for the project is given in Figure 4.3, Figure 4.4 and Figure 4.5 respectively.



Figure 4.3: Total Material Movement Schedule





Figure 4.4: Ore Processing Schedule



Figure 4.5: Stockpiling Schedule





4.4 Ore Reserve

All Measured and Indicated Mineral Resources within the pit envelopes were included in the Probable Ore Reserve.

The Ore Reserve estimate underpinning the DFS was based on the MRE's shown in Table 3.1. The Ore Reserves were estimated from practical mining envelopes developed from conventional optimisation methods, following the application of modifying factors for mining dilution and ore loss. The designs consider the geotechnical constraints specific to each mining location.

The Combined Ore Reserves for the DFS are summarised in Table 4.7

PROJECT	PROVED		PROBABLE		TOTAL MATERIAL		
	('000t)	(g/t Au)	('000t)	(g/t Au)	('000t)	(g/t Au)	('000oz.)
Sand King	-	-	1,300	2.6	1,300	2.6	110
Missouri	-	-	1,500	2.6	1,500	2.6	130
Riverina Open Pit	-	-	1,400	1.8	1,400	1.8	81
Golden Eagle	-	-	130	3.8	130	3.8	16
Waihi	-	-	1,500	2.3	1,500	2.3	110
Callion	-	-	240	2.6	240	2.6	21
TOTAL	-	-	6,100	2.4	6,100	2.4	460

Table 4.7: DFS Ore Reserves

Notes:

1. The table contains rounding adjustments to two significant figures and does not total exactly.

- 2. This Ore Reserve was estimated from practical mining envelopes and the application of modifying factors for mining dilution and ore loss.
- 3. For the open pit Ore Reserve dilution skins were applied to the undiluted LUC Mineral Resource estimate at zero grade. The in-pit global dilution is estimated to be 29% at Sand King, 43% at Missouri, 22% at Riverina, 13% at Waihi and 23% at Callion all of which were applied at zero grade. The lower dilution at Riverina, Waihi and Callion reflecting the softer lode boundary and allows for inherent dilution within the lode wireframe. All Inferred Mineral Resources were considered as waste at zero grade.
- The Open Pit Ore Reserve was estimated using incremental cut-off grades specific to location and weathering classification. They range from 0.54 g/t to 0.69 g/t Au and are based on a price of A\$2100 per ounce and include ore transport, processing, site overheads and selling costs and allow for process recovery specific to the location and domain and which range from 85% (Sand King fresh ore) to 95%.
- 5. Approximately 100,000 t at 1.8 g/t at Riverina was downgraded from Proved to Probable due to uncertainty at the time surrounding metallurgical recovery. Subsequent test work estimated the Riverina recoveries to be 90.1%, 97.6% and 94.3% for oxide, transition and fresh, respectively.
- 6. The underground Ore Reserve was estimated from practical mining envelopes derived from expanded wireframes to allow for unplanned dilution. A miscellaneous unplanned dilution factor of 5% at zero grade was also included. The global dilution factor was estimated to be 32% with an average grade of 0.77 g/t Au.
- 7. The underground Ore Reserve was estimated using stoping cut-off of 2.7 g/t Au which allows for ore drive development, stoping and downstream costs such as ore haulage, processing, site overheads and selling costs. An incremental cut-off grade of 0.7 g/t Au was applied to ore drive development and considers downstream costs only. Cut-off grades were derived from a base price of A\$2100 per ounce and allow for an assumed process recovery of 92%. Subsequent test work estimated the Golden Eagle fresh recovery to be 90.6%

Probable Reserves for Sand King, Missouri and Riverina Open Pits as well as the Golden Eagle underground were published on the 26 May 2020 and have not materially changed from that date.

Waihi and Callion Open Pit Reserves are maiden Ore Reserves.

All material was subjected to an economic evaluation following detailed cost modelling using project specific costs sourced from contractors, vendors or external consultants. The mine plan has shown



to be technically and financially feasible with a positive net present value at a discount rate of 6%. A flat gold price assumption of A\$2,100 / ounce was used for the Ore Reserve financial evaluation.

All economic Mineral Resources evaluated have been c<mark>onverted to Probable Or</mark>e Reserves.

Open pit dilution was estimated by applying dilution skins at varying rates, based on the nature of the mineralisation and the proposed mining method. The dilution was applied at zero grade and all Inferred Mineral Resource was considered waste at zero grade. The underground dilution at Golden Eagle was applied using expanded wireframe techniques through the application of mineable stope shape optimisation.

5 PROCESSING

5.1 Process description

The existing Davyhurst plant will use conventional Carbon-in-Pulp (CIP) and gravity concentration methods to recover gold from the ore. The existing processing facility contains the following unit operations:

- Three stage crushing;
- Ore storage and reclaim;
- Two stage grinding and classification;
- Gravity separation and concentrate processing;
- Leach and adsorption;
- Carbon elution and gold recovery;
- Tailings thickening and disposal;
- Reagent storage, mixing and distribution; and
- Water and air services.

5.2 Crushing and Screening

The crushing circuit consists of a three stage crushing configuration with a new double deck inclined vibrating screen producing three product streams:

- (i) oversize which is directed back to the secondary crusher
- (ii) mid-stream back to tertiary crusher
- (iii) undersize to the fine ore bin (FOB).

It is designed to operate 18 hours per day at 180 tph.

5.3 Grinding, Concentration and Classification

The grinding, concentration and classification circuit operates 24 hours per day, 7 days per week. The circuit consists of two stages of ball milling, with two Knelson concentrators and a classifying hydro-cyclone cluster.

The primary mill is equipped with a 1,300-kW fixed speed motor processing a nominal 150 tph. Cyclone underflow is split between the gravity screen or to either the primary or secondary mill via a

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splitter box. When following the usual path to the secondary mill, it is combined with process water and passes through the 1,120 kW secondary ball mill. The nominal grind targets P80 at 106 μ m.

Secondary cyclone underflow is split, with most of the product reporting back to the secondary mill and the remainder reporting to the gravity circuit.

5.4 Leach & Adsorption

The leaching and adsorption circuit treats the material from the cyclone overflow which feeds a trash screen to remove any waste material, with the trash screen underflow reporting to the first of three leach tanks.

Gold is leached into solution via the cyanidation process and adsorbed onto the activated carbon which is pumped counter current to the slurry through six adsorption. Loaded carbon is recovered from adsorption tank 1, where the gold is stripped from the carbon in the elution circuit and the barren carbon is returned to the adsorption tank 6.

5.5 Tailings Disposal

Slurry exiting the final adsorption tank passes over a carbon safety screen. Carbon recovered from the screen is placed in a bunded area for reuse.

Screen undersize reports to the tailings thickener feed hopper where one of two (duty/standby) variable speed centrifugal pumps transfers the slurry into the tailings thickener. Slurry entering the high-rate thickener is combined with diluted flocculant and thickened to approximately 50% solids w/w and pumped to the tailings storage facility (TSF) via one of two (duty/standby) variable speed underflow pumps. The TSF was designed and constructed to the standards set by the Department of Mining, Industry and Resources Safety. A Tailing Management Plan is in place.

The flowsheet also details other features of the circuit including:

- Elution and gold recovery
- Carbon regeneration
- Reagent storage, mixing, distribution and usage
- Radiation hazards and management

5.6 Metallurgical Test Work

Metallurgical evaluation was undertaken to validate the metallurgical inputs for the DFS. The purpose of the test work was to identify the metallurgical and physical properties of the ore when being processed through the existing Davyhurst processing plant. Drill samples were collected from the six mining locations on a metallurgical domain basis.

The samples were tested over several programmes by ore type using single hole half and quarter core composites (where available). The following testing was undertaken:

- Bond abrasion index;
- Bond Ball mill work index;
- Bond Rod mill work index;
- SMC testing on fresh ore;
- Head assays (ICP): Au, Ag, Al, As, Ba, Be, Bi, C-total, C-organic, Ca, Cd, Co, Cr, Cu, Fe, Hg, K, Li, Mg, Mn, Mo, Na, Ni, P, Pb, S-total, S-sulphide, Sb, SiO2, Sr, Te, Ti, V, Y and Zn;



- Gravity recovery via a lab scale Knelson concentrator, gravity tails returned to leach feed;
- Cyanide leach tests at grind sizes: P80 75 μm, 106 μm, 125 μm;
- 48 hours leach;
- Cyanide initial concentration of 0.05%, maintained at 0.02%;
- Oxygen sparged;
- Tests performed in site water, from the Battery borefields;
- pH target 9.0-9.5;
- Full ICP assay on feed sample.
- All testing was conducted using Battery borefield water from OBM to best represent the full scale production.

Metallurgical test work has shown that overall life of mine gold recovery will be 90.3% at a grind size of P_{so} 106 µm. The individual metallurgical domains are tabled 5.1.

Table 5.1: Metallurgical recoveries used to estimate the Ore Reserves at Davyhurst

Average Gold Extraction by Ore Source				
Deposit	Domain	Au Extraction (%)		
Riverina	Oxide	90.1%		
	Transitional	97.6%		
	Fresh	94.3%		
Missouri	Oxide*	94.0%		
	Transition*	92.0%		
	Fresh	92.2%		
Sand King	Oxide*	95.7%		
	Transitional	95.7%		
	Fresh	85.0%		
Waihi	Oxide*	94.0%		
	Transition*	92.0%		
	Fresh	89.8%		
Callion	Oxide*	91.3%		
	Transitional	91.3%		
	Fresh	92.5%		
Golden Eagle	Fresh	90.6%		

The DFS mine plan includes the processing of some minor metallurgical domains that were not specifically tested and have assumed recovery values based on historical plant performance. The domains are minor in their overall contribution to the total milling schedule, being 2.3% of the total tonnes and 1.8% of total ounces. More specifically:

- Sand King Oxide 3.3% of deposit tonnes, 2.5% of deposit ounces
- Missouri Oxide 1.1% of deposit tonnes, 1.0% of deposit ounces
- Missouri Transitional 4.9% of deposit tonnes, 4.0% of deposit ounces
- Waihi Oxide 0.9% of deposit tonnes, 0.6% of deposit ounces
- Waihi Transitional 3.3% of deposit tonnes, 2.3% of deposit ounces
- Callion Oxide 9.0% of deposit tonnes, 6.4% of deposit ounces



6 INFRASTRUCTURE

The main items of infrastructure for the project is shown in Table 6.1.

Table 6.1: Main infrastructure items at the Davyhurst Gold Project

Infrastructure	Capacity/Size
Crusher Plant	180 tonnes per hour
Processing plant	1,200,000 T/a
Process water supply & storage	8 bores & two storage dams approximately 30 m x 30 m with over 12,000 cubic metres of combined process plant storage
Potable water & storage	2 bores with potable water generated via a 200 m3/day Reverse Osmosis (RO) Plant
Workshops & Warehouse	1x Electrical, 1 x Mechanical, 1 x Warehouse
Laydown and office areas	Fully equipped and functioning office facility for administration and technical staff
Power	Nominal 6 MW power station with auxiliary mains power supply via Western Power's South West Interconnected System (SWIS)
Fuel farm	500,000 litres – administration & power station 300,000 litres – Riverina area 300,000 litres – Siberia area 368,000 litre LNG storage tank
Vehicle Wash Down Pad	Heavy vehicle + light vehicle
ROM pad	5 ha
Tailings storage facility	Paddock style TSF
Office infrastructure	Administration & technical services buildings, communications, ablution, first aid, warehouse, laboratory and central workshop buildings
Road network	Extensive major surface haul roads for access from the all deposits to the process plant ROM pad
Single persons accommodation	172 room camp
Core Shed	Extensive drill core processing facility
Callion Airstrip	1,200 m long

7 REVENUE ASSUMPTIONS

Revenue was based on a gold price assumption of A\$2,100/oz before selling costs and is below the current spot price of around A\$2,550 as of the date of this announcement. The price used is considered by Ora Banda Mining to be a conservative estimate of the medium-term gold price.

The standard Western Australian government royalty of 2.5% was applied in the financial model. Where applicable OBM has also made provision for minor third-party royalties.

8 CAPITAL AND OPERATING COSTS

A detailed financial model to a Definitive Feasibility Study level of accuracy was generated to assess the economic viability of the Riverina, Missouri, Sand King, Waihi, Callion and Golden Eagle deposits.

Plant refurbishment cost were estimated following a detailed review of the Davyhurst process plant and associated infrastructure by GR Engineering Services Ltd (**GRES**) (refer ASX announcement, 2 August 2019).



The remaining costs were generated from first principals cost modelling and supported by external contractor pricing where applicable.

9 FINANCIAL AND SENSITIVITY ANALYSIS

The Ore Reserve estimate is supported by a financial model that has been prepared to a Definitive Feasibility Study level of accuracy. All inputs from open pit and underground operations, processing, transportation and sustaining capital as well as contingencies have been scheduled and evaluated to generate a life of mine financial model. Economic inputs have been sourced from suppliers, contractors or independent consultant databases. A discount rate of 6% pa was applied. The Net Present Value (NPV) of the project was demonstrated to be positive at the assumed commodity price. The project economics based on mining the Ore Reserve retains a reasonable margin of profitability at the assumed gold price.



Sensitivities were conducted on key project parameters such as gold price, process recovery, grade, mining costs and processing costs. The NPV sensitivity of the Project was tested at various input parameters over a nominal +/-10% range. In all cases, the NPV remained positive. The project was shown to be most sensitive to the usual parameters that are direct revenue drivers, being gold price, grade and recovery. Mining costs were shown to be less sensitive whereas processing costs variances were shown to be the least sensitive.





Mining costs for the Project total A\$451 million and comprise 76% of the total operating costs. Sensitivity analysis of the costs indicated a 10% variation in the mining costs will vary net cash flow by A\$45 million.

Processing costs of the Project total A\$123 million comprising 21% of the total operating costs. Sensitivity analysis of the costs indicated a 10% variation in the processing costs will vary net cash flow by A\$12 million.

Ancillary facility costs for the Project total A\$21 million comprising 4% of the total operating costs. Sensitivity analysis of the costs indicated a 10% variation in the processing costs will vary net cash flow by A\$2 million.

10 APPROVALS

Prior to being placed on care and maintenance in 2018, the Davyhurst Gold Project was fully operational with all relevant permits and approvals in place at the time. Permitting studies for the recommencement of mining at the four Davyhurst brownfield mine sites commenced in 2019, following environmental risk assessments and consultation with key stakeholders.

Secondary approvals required under subordinate legislation include Native Vegetation Clearing Permits (Environmental Protection Act 1986), Groundwater Licence applications and amendments (Rights in Water and Irrigation Act 1914). Save for Callion (NVCP approved pending grant of tenure) these permits and licenses are in force.

Mining Proposal Amendments and Mine Closure Plan Amendments covering planned development changes for each site have been prepared and will be lodged with the Department of Mines, Industry Regulation and Safety (DMIRS) in July 2020.



Risk based Environmental Management Plans are in preparation, based on site audits, legal compliance requirements and the findings of environmental studies. Project implementation will be achieved using proven mining and processing technologies suited to local climatic conditions and tested in the Eastern Goldfields of Western Australia.

Project Management Plan (PM-727-392535) governing process plant remedial works has been assessed by DMIRS and approved by the State Mining Engineer.

OBM is not aware of any reason why the suite of previously issued permits and approvals would not be endorsed, or new permits and / or approvals granted within a reasonable time frame.

10.1 Company Standards

Ora Banda is committed to the recommencement of mining operations at Davyhurst in a manner that benefits its shareholders, employees, contractors, suppliers, partners and the community.

Ora Banda aims to achieve best practice standards of environmental care in carrying out its exploration and mining activities. To do this the Company will:

- Comply with all laws, statutory regulations and standards with respect to the environment;
- Minimise the effect that the Company's activities have on the environment and the communities in which it operates through proper planning, operating procedures and rehabilitation protocols;
- Ensure that employees and contractors are informed about and comply with Ora Banda's standards and expectations;
- Periodically review and audit the Company's standards and requirements with regard to environmental issues and continuously strive to achieve the highest standard of environmental care;

Ora Banda also:

- Supports standard industry practice throughout the Project development and operational phases;
- Seeks to optimise social impacts in areas relating to the Project and to avoid negative impacts resulting from its activities; and
- Will work to ensure that operations contribute to the implementation of relevant local and regional development plans.

11 KEY RISKS

The proposed future activities of the Company are subject to several risks and other factors which may impact its future performance. Some of these risks can be managed and mitigated by planning and the use of safeguards and appropriate controls. However, many of the risks are outside the control of the Company and cannot be mitigated.

OBM has identified several key risks to the Project. These include, but are not limited to:

• Confidence in the resource model – the Company has undertaken resource drilling to upgrade the majority of the resource to the Indicated Mineral Resource category. This has formed the basis for the Ore Reserve used in the DFS. The resource estimates, by their very nature, are necessarily imprecise and depend to some extent on interpretations, which may prove to be



inaccurate and require adjustment. Adjustments to resource estimates could affect the Company's future plans and ultimately its financial performance and value.

- Geotechnical Risks will be managed using industry standard design criteria and ground control methods tailored to the specific requirements of the DGP in line with the recommendations from geotechnical modelling and analysis. Geotechnical work completed is at DFS level and has been completed by an external consultant that has conducted geotechnical evaluations at each of the mining areas.
- Mining Risks the proposed mine schedule and mining method is considered conventional in approach and is expected to provide the run-of-mine ore tonnage and quality. The operational aspects of development and production are generally considered relatively low risk. Most of the operational workforce will be supplied by the selected mining contractor. The mining contractor costs included in the DFS are material in value and are based on a response to a budget level "Request For Quotation" (RFQ) specific to the proposed work. Tendered rates and are subject to final contract negotiations with the selected preferred contractor. Mining around historical underground voids will be managed through conventional void management plans and procedures commonly implemented throughout the goldfields.
- Hydrogeology Risks dewatering requirements are based on modelling of inflow volumes, both in-pit and underground, across the Project. The Company believes the estimates of inflows are conservative, however variations can occur.
- Processing Risks the Company proposed to treat all ores through the Davyhurst Process Plant, which has been on care and maintenance since September 2018. OBM has processes in place to manage the transition from care and maintenance to operations.
- Accuracy of production and development rates and associated costs production scenarios are modelled using benchmarked production rates. Costs have been based on a response to a budget level "Request For Quotation" ("RFQ") specific to the proposed work.
- COVID-19 the likelihood and severity of impacts from the COVID-19 pandemic are difficult to predict. Should issues surrounding the spread and longevity of COVID-19 persist for an extended period, sourcing the required workforce along with supply chain issues could become problematic and result in Project start-up delays and/or changes in costs.
- Pre-production and plant capital the capital costs required to restart the Company's existing processing plant and mining operations at Davyhurst have been scoped and estimated to cost approximately \$45.1 million (+/- 10% level of confidence). This capital cost to restart the project is an estimate only and such capital costs may vary.
- Funding Risks OBM is reliant on additional funding to secure pre-production CAPEX and complete full mine commissioning. While the process to secure financing has commenced, there is no guarantee that funding will be achieved. There are other risks, in addition to those identified here, which may impact a financiers funding appetite, and these mainly include geopolitical and international risks, commodity pricing views and foreign exchange forecasts.
- Amount and timing of pre-production capital current capital expenditure estimates are at DFS level and are subject to change. The processing plant refurbishment capital estimate included a A\$2 million contingency provision. The remaining DFS capital estimates do not include a contingency provision as majority of the capital costs are mine development costs which are subject to contractor rates.



- Project delays and cost overruns the Company's ability to develop and potentially commercialise the Davyhurst Project on schedule may be affected by factors including project delays and cost overruns. If the Company experiences project delays or cost overruns, this could result in the Company not realising its operational or development plans or result in such plans costing more than expected or taking longer to realise than expected.
- Lower than forecast commodity price (A\$) A prolonged suppression of the gold price or a substantial strengthening of the Australian dollar has the potential to reduce the Project NPV. The financial model supporting the Project is based on a flat gold price derived from medium to long term consensus pricing. A hedging strategy can be enacted to protect from any downside movements in commodity pricing.

This announcement was authorised for release to the ASX by David Quinlivan, Managing Director. For more information about Ora Banda Mining and its projects please visit our website at www.orabandamining.com.au

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Competent Persons Statement

The information in this announcement that relates to exploration results, and the Riverina, Waihi, Golden Eagle, Sand King, Missouri and Callion Mineral Resources is based on information compiled under the supervision of Mr Andrew Czerw, an employee of Ora Banda Mining Limited, who is a Member of the Australian Institute of Mining and Metallurgy. Mr Czerw 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 Czerw consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Sand King, Missouri, Riverina, Waihi, Golden Eagle, and Callion Mineral Resources are reported in accordance with the JORC Code (2012). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements dated 15 December 2016 (Missouri) and 3 January 2017 (Sand King), 2 December 2019 (Riverina), 4 February 2020 (Waihi), 8 April 2020 (Golden Eagle), 15 May 2020 (Callion) and restated in market announcement 'Davyhurst Gold Project - Ore Reserve Update' dated 26 May 2020. The Company further confirms that all material assumptions and technical parameters underpinning the Mineral Resource estimates in the relevant market announcements continue to apply and have not materially changed.

Mineral Resources other than Sand King, Missouri, Riverina, Waihi, Golden Eagle and Callion, were first reported in accordance with the JORC 2004 code in Swan Gold Mining Limited Prospectus released to the market on 13 February 2013. Mineral Resources other than Sand King, Missouri Riverina, Waihi, Golden Eagle and Callion have not been updated to comply with JORC Code (2012) on the basis that the information has not materially changed since it was first reported.

The information in this report that relates to Ore Reserves is based on information compiled by Mr Geoff Davidson, who is an independent mining engineering consultant, and has sufficient relevant experience to advise Ora Banda Mining Limited on matters relating to mine design, mine scheduling, mining methodology and mining costs. Mr Davidson 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 Davidson is a Fellow member of the Australasian Institute of Mining and Metallurgy. Mr Davidson is satisfied that the information provided in this statement has been determined to a feasibility level of accuracy, based on the data provided by Ora Banda Mining Limited. Mr Davidson consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Forward-looking Statements

This announcement contains forward-looking statements which may be identified by words such as "believes", "estimates", "expects', "intends", "may", "will", "would", "could", or "should" and other similar words that involve risks and uncertainties. These statements are based on an assessment of present economic and operating conditions, and on a number of assumptions regarding future events and actions that, as at the date of this announcement, are expected to take place.

Such forward-looking statements are not guarantees of future performance and involve known and unknown risks, uncertainties, assumptions and other important factors, many of which are beyond the control of the Company, the Directors and management of the Company. These and other factors could cause actual results to differ materially from those expressed in any forward-looking statements.

The Company has no intention to update or revise forward-looking statements, or to publish prospective financial information in the future, regardless of whether new information, future events or any other factors affect the information contained in this announcement, except where required by law.

The Company cannot and does not give assurances that the results, performance or achievements expressed or implied in the forward-looking statements contained in this announcement will actually occur and investors are cautioned not to place undue reliance on these forward-looking statements.



APPENDIX 1 – MINERAL RESOURCE TABLE

DDOIL	ст		MEAS	URED	INDIC	ATED	INFE	RRED	то	TAL MATER	IAL
PROJE		Cut-Off	('000t)	(g/t Au)	('000oz.)						
GOLDEN EAGLE		2.0	-	-	247	4.1	146	3.4	393	3.9	49
LIGHTS OF ISRAEL		3.0	-	-	74	4.3	180	4.2	254	4.2	34
MAKAI SHOOT		1.0	-	-	1,985	2.0	153	1.7	2,138	2.0	137
	Open Pit	0.5	-	-	1,948	2.4	131	2.9	2,079	2.4	159
WAIHI	Underground	2.0	-	-	188	3.7	195	4.0	383	3.8	47
	TOTAL		-	-	2,136	2.5	326	3.5	2,462	2.6	206
Central Davyhurs	st Subtotal		-	-	4,442	2.4	805	3.3	5,247	2.5	427
LADY GLADYS		1.0	-	-	1,858	1.9	190	2.4	2,048	1.9	125
	Open Pit	0.5	116	1.8	2,694	1.8	183	3.0	2,993	1.9	183
RIVERINA AREA	Underground	2.0	-	-	226	5.7	502	6.1	728	5.9	139
	TOTAL		116	1.8	2,843	1.8	763	3.8	3,721	2.7	322
FOREHAND		1.0	-	-	386	1.7	436	1.9	822	1.8	48
SILVER TONGUE		1.0	-	-	155	2.7	19	1.3	174	2.5	14
SUNRAYSIA		1.0	-	-	175	2.1	318	2.0	493	2.0	32
Riverina-Mulline	Subtotal		116	1.8	5,494	1.9	1,648	2.9	7,258	2.3	540
	Open Pit		-	-	1,252	3.4	128	3.3	1,380	3.4	150
SAND KING	Underground	0.5	-	-	438	3.7	698	3.8	1,136	3.7	136
	TOTAL	2.0	-	-	1,690	3.5	826	3.7	2,516	3.5	286
	Open Pit		-	-	1,460	3.4	17	3.5	1,477	3.4	160
MISSOURI	Underground	0.5	-	-	364	3.4	258	3.4	622	3.4	68
	TOTAL	2.0	-	-	1,824	3.4	275	3.4	2,099	3.4	227
PALMERSTON / CAI	MPERDOWN	1.0	-	-	118	2.3	174	2.4	292	2.4	23
BEWICK MOREING		1.0	-	-	-	-	50	2.3	50	2.3	4
BLACK RABBIT		1.0	-	-	-	-	434	3.5	434	3.5	49
THIEL WELL			-	-	-	-	18	6.0	18	6.0	3
Siberia Subtotal			-	-	3,632	3.4	1,777	3.5	5,409	3.4	592
	Open Pit	0.5	-	-	241	3.7	28	1.6	269	3.5	30
Callion	Underground	2.0	-	-	255	6.0	156	5.5	411	5.8	77
	TOTAL		-	-	496	4.9	184	4.9	680	4.9	107
Callion Subtotal			-	-	496	4.9	184	4.9	680	4.9	107
FEDERAL FLAG		1.0	32	2	112	1.8	238	2.5	382	2.3	28
SALMON GUMS		1.0	-	-	199	2.8	108	2.9	307	2.8	28
WALHALLA		1.0	-	-	448	1.8	216	1.4	664	1.7	36
WALHALLA NORTH		1.0	-	-	94	2.4	13	3.0	107	2.5	9
MT BANJO		1.0	-	-	109	2.3	126	1.4	235	1.8	14
MACEDON		1.0	-	-	-	-	186	1.8	186	1.8	11
Walhalla Subtota	al		32	2.0	962	2.1	887	2.0	1,881	2.1	125
IGUANA		1.0	-	-	690	2.1	2,032	2.0	2,722	2.0	175
LIZARD		1.0	106	4	75	3.7	13	2.8	194	3.8	24
Lady Ida Subtota	d		106	4.0	765	2.3	2,045	2.0	2,916	2.1	199
Davyhurst Tota			300	2.7	15,800	2.5	7,300	2.8	23,400	2.6	1,990
BALDOCK		-	-	-	136	18.6	0	0.0	136	18.6	81
METEOR		-	-	-	-	-	143	9.3	143	9.3	43
WHINNEN		-	-	-	-	-	39	13.3	39	13.3	17
Mount Ida Tota	al		-	-	140	18.6	180	10.2	320	13.8	140
Combined Tota	I		300	2.7	15,900	2.6	7,500	2.9	23,700	2.8	2,130

Notes

- The Missouri, Sand King, Riverina, Waihi, Callion & Golden Eagle Mineral Resources have been updated in accordance with all relevant aspects of the JORC code 2012, and initially released to the market on 15 December 2016 & 26 May 2020 (Missouri), 3 January 2017 & 26 May 2020 (Sand King), 2 December 2019 & 26 May 2020 (Riverina), 4 February 2020 (Waihi), 15 May 2020 & 29 June 2020 (Callion) & 8 April 2020 (Golden Eagle).
- All Mineral Resources listed above, with the exception of the Missouri, Sand King, Riverina, Waihi, Callion & Golden Eagle Mineral Resources, were prepared previously and first disclosed under the JORC Code 2004 (refer Swan Gold Mining Limited Prospectus released to the market on 13 February 2013). These Mineral Resources have not been



updated in accordance with JORC Code 2012 on the basis that the information has not materially changed since it was first reported.

- 3. The Riverina, Waihi, Sand King, Missouri and Callion Open Pit Mineral Resource Estimates are reported within a A\$2,400/oz pit shell above 0.5g/t. The Riverina, Waihi, Sand King, Missouri, Callion and Golden Eagle Underground Mineral Resource Estimates are reported from material outside a A\$2,400 pit shell and above 2.0 g/t.
- 4. The values in the above table have been rounded.



APPENDIX 2 – JORC CODE 2012 – TABLE 1

Table 1, Sections 1, 2 and 3 information for Riverina, Sand King, Missouri and Golden Eagle were reported on 26 May 2020 "Davyhurst Gold Project – Ore Reserve Update". Sections 1, 2 and 3 for Callion and Waihi are reported below. Section 4 for all deposits is reported below.

11.1 Section 1 Sampling Techniques and Data – Waihi

Criteria	JORC Code explanation	Commentary
Sampling techniques	 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. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. 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. 	 Billiton - RAB and RC 1m samples with RAB being composited to 2m. Diamond core of NQ size. Assay sample techniques undocumented Consolidated Exploration (Consex) – RAB 1m samples usually dispatched as 3m composites but occasional 1m. RC a mix of 1m sampling or 2m composites. Lady Eileen programs RC drilling made use of roller, Blade or hammer with crossover sub all nominally 5.5-inch diameter to obtain 2-3kg sample. Composite 2m samples were hammer milled, mixed and split to 200g then pulverised. 1m samples single stage mix and ground. Subsamples taken for aqua regia and fire assay. Cons Gold (Consolidated Gold) – RC 1m samples where alteration is visible. Remainder of hole composited to 4m. 2 to 3 kg samples, including core, sent to laboratory for crushing, pulverising and 50g Fire Assay. Croesus – RC 1m samples collected under cyclone. 5m comps assayed for gold by 50g Fire assay. NQ diamond except for geotechnical purposes (HQ triple). DPPL (Davyhurst Project Pty. Ltd.)- 4.25 to 5.5-inch RC drilling with face hammer. Potential mineralisation sampled and assayed on a metre basis otherwise 4m composites. Samples jaw crushed and pulverised before taking a 50g m charge for fire assay. Ora Banda Mining Limited (OBM) - RC samples collected from the levelled cone splitter directly off rig into calico bags. Splitter maintained on level site to ensure sample representivity. 1m samples are dried, crushed, pulverised and a 50g charge is analysed by Fire Assay. Half core samples cut by saw. Core sample intervals selected by geologist and defined by geological and/or mineralisation boundaries, or sampled to 1m. Samples are crushed, pulverized and a 40g or 50g charge is analysed by Fire Assay. WMC - RC Sampling on 1m basis, assayed by aqua regia method, unknown laboratory.
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). 	 Billiton RAB and RC (Conventional hammer) diameter undocumented with use of roller/blade and hammer. NQ Diamond core Consex - RC drilling with roller, blade or hammer with crossover sub. Cons Gold – NQ diamond and HQ (triple) for geotechnical holes. RAB and RC. 4.25 to 5.5-inch RC drilling with stabilisers and face sampling hammers. Croesus – Diamond holes NQ2 diameter. RC and RAB details undocumented but assumed to be industry standard at the time being 5.5-inch face sampling hammers and 4-inch diameter respectively. Delta – RAB - details undocumented DPPL - NQ core and HQ for geotechnical holes. RC drilling with stabilisers and face sampling hammers. OBM - HQ3 coring to approx. 40m, then NQ2 to BOH. All core oriented by reflex instrument. RC drilled with face sampling hammer, 5.5" – 5.625" diameter WMC – Conventional RC hammer, diameter unknown and RAB drilling details undocumented.



Criteria	JORC Code explanation	Commentary
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 sample bias may have occurred due to preferential loss/gain of fine/coarse material. 	 RC drill recoveries were not recorded by Aberfoyle/Bardoc, Anaconda, Ashton, Consolidated Gold, Croesus, Delta, DPPL, Hill Minerals, Intrepid, Monarch, Mt Kersey, Normandy, Pancontinental, Texas Gulf, West coast holdings or WMC Billiton – Recoveries for some RC drilling programs were examined in 1986 but raw data not available. Consex – 2 metre plastic pipe inserted into cyclone vent. Cyclone washed at the end of each hole or if water injected. Sample weights measured for Homeward bound (no bias observed) and Lady Eileen prospects (generally no bias observed aside from two high grade samples perceived to be due to coarse grained gold) OBM - Diamond drill recoveries are recorded as a percentage calculated from measured core against downhole drilled intervals (core blocks). RC sample recoveries are approximated based on the size of the bulk sample and recorded in drill log tables. It is unknown whether a relationship exists between sample recovery and grade or whether sample bias may have occurred.
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 and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. 	 Billiton - Qualitative: lithology, alteration for Diamond and RAB. RC logging details unavailable Consolidated Exploration- Qualitative: lithology, colour, alteration, grainsize (at times). Quantitative: Quartz mineralisation at times Consolidated Gold/ DPPL - Qualitative: lithology, colour, oxidation, alteration, with grainsize, texture and structure often recorded in diamond drilling. Quantitative: Quartz veining. Core photographed. Logging entered directly into HPLX200 data loggers. Croesus - Most holes photographed, geologically logged and geotechnical and magnetic susceptibility measurements were taken. Qualitative: Lithology, colour, oxidation, exture, structures, regolith. Quantitative: Quartz veining OBM - Qualitative: Lithology, colour, oxidation percentages. Core photographed wet and dry. Magnetic susceptibility recorded for core holes. Bulk density measurements taken at regular intervals for core holes (determined by Archimedes Principle). WMC RC: Qualitative: Lithology, Colour, Grainsize, Alteration and oxidation Some logging detail was lost during translation from one logging system to another. This has been rectified by referring back to original logs. Entire holes were logged by all operators
Sub-sampling techniques and sample preparation	 If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all subsampling stages to maximise representivity of samples. 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. Whether sample sizes are appropriate to the grain size of the material being sampled. 	 Billiton – Sub-sampling methods undocumented. 1m repeat fire assays of 2m RAB comps at Lady Eileen were done. Duplicates for RAB and RC inserted however frequency unknown. Consex – RC holes sampled on 1m basis and riffle split to 1-2kg samples for 3m composites or 2-3kg samples for 2m composites. Composite 2m samples were hammer milled, mixed and split to 200g then pulverised to 200#. 1m samples single stage mix and ground to 200#. Consgold - RC Samples collected via cyclone at 1m intervals and passed through 3 stage riffle splitter. A 2-3kg fraction was calico bagged for analysis, the residue collected in plastic bags and stored on site. Potentially mineralised zones were sampled at 1m intervals, the remainder composited to 4m by unknown method. Composite samples returning >0.19g/t were re submitted at 1m intervals. Samples underwent mixer mill preparation (2-3kg) by Amdel Laboratories. RAB 4m composite samples using PVC spear. Samples returning >0.19g/t were re submitted at 1m intervals. Diamond drill samples were sawn into half core. One half was jaw crushed, then pulverised using a labtechnics mill. A quartz blank was pulverised between each sample to avoid contamination. Field duplicates from residues at 1 in 20 frequency submitted. Croesus RC/RAB - 1m samples collected under cyclone. 5m comps, spear sampled with 50mm PVC pipe. Wet RC drill samples were thoroughly mixed in the sample retention bag and scoop sampled to form a composite sample. 3-5kg five metre composite analytical samples, returning values greater than 0.1g/t gold, were riffle split at 1m intervals, were samples where dry, and grab sampled where wet. RAB 1m resampling method undocumented. Samples were dried, crushed and split to obtain a sample test than 3.5kg, and then fine pulverised prior to a 50gm charge being collected and analysed. Every 20th sample was duplicated in the field and submitted for analysis. Diamond tails were cut to half core and sampled based on geological boundaries and identified

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Criteria	JORC Code explanation	Commentary
		 DPPL – RC 3 stage riffle split then 4m compositing. RAB 4m composites sampled using PVC spear. Both RC and RAB composites returning >0.19ppm Au re-submitted as 1m samples. Field duplicates from residues at 1 in 20 frequency submitted. OBM – RC samples split into 2 x calico bags each metre using a cone splitter. Wet or moist samples are noted during sampling. Core was cut with diamond saw and half core sampled. All mineralized zones are sampled, including portions of visibly un-mineralised hanging wall and footwall zones. Sample weights range from >1kg to 3.5kg. Samples weighed by laboratory, dried and split to <3kg if necessary and pulverized by LM-5 WMC - RC Sampling on 1m basis, methods undocumented. Assay by agua regia method, unknown laboratory.
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. 	 Billiton - Laboratory and methods undocumented. Standards for RAB and RC inserted however frequency unknown Consex - Genalysis composite 2m samples were hammer milled, mixed and split to 200g then pulverised to 200#. Im samples single stage mix and ground to 200#. Phase 1 standard wet chemical multi acid digestion and AAS. Second phase were also pre-roasted. Results of >1g/t re-assayed by fire assay. Check assays at umpire lab (Classic labs) for Lady Eileen drilling - significant differences in high grade samples, otherwise considered good. Consolidated Gold/ DPPL – RC and RAB - Mixer mill prep with fire assay 50g charge at AMDEL, Minilab or Analabs Laboratories in Kalgoorlie. Half core was diamond sawn, jaw crushed, milled using LABTECHNICS mill at AMDEL for 50g charge by fire assay. Gannet standards submitted to monitor lab accuracy for infill resource drilling. Pulp umpire analysis was done but frequency unknown (1995). Screen fire assays of selected high grade samples. Quartz blanks submitted between each diamond core sample. Croesus samples analysed for Au by Fire Assay/ICPOES by Ultratrace in Perth. Gannet standards and blank samples made by Croesus were submitted with split sample submissions. QAQC analysis of repeats was analysed by Croesus Mining NL. for their drilling completed during 2000. OBM - Samples sent to Nagrom in Perth. The samples have been analysed by Firing a 50gm portion of the sample. Lower sample weights may be employed for samples with very high sulphide and metal contents. This is the classical fire assay process and will give total separation of gold. An ICPOES finish is used. Commercially prepared standard samples and blanks are inserted in the sample stream at a rate of 1:25 for standards and 1:25 for blanks. Sizing results (percentage of pulverised sample passing a 75µm mesh) are undertaken on approximately 1 in 40 samples. Duplicate samples are submitted for RC holes only at a rate of approximately 1:30. The accurac
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. 	 OBM geologists have viewed selected diamond holes from certain deposits, including Waihi and verified the location of mineralised intervals. Cons Gold – Each metre interval geologically logged directly into HPLX2000 with standardised logging codes. Twinned holes were occasionally used by previous operators, but this practice was not common. OBM - Geological and sample data logged directly into field computer (Panasonic Toughbook CF-31) using Geobank Mobile. Data is exported onto company servers and imported into Geobank SQL database by the database administrator (DBA). Assay files are received in .csv format and loaded directly into the database by the DBA. Hardcopy and/or digital copies of data are kept for reference if necessary. Data entry, verification and storage protocols for remaining operators is unknown. No adjustments have been made to assay data
Location of data points	 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. Specification of the grid system used. Quality and adequacy of topographic control. 	 RAB and AC holes are/were not routinely collar surveyed or downhole surveyed due to their limited use in resource estimation. To this end, discussion of RAB and AC drilling is omitted from this section. RC/GC (grade control) and shallow RC holes are/were not routinely downhole surveyed due to their shallow nature reducing the chance of significant deviation. Barren exploration RC holes were not routinely downhole surveyed, or collar surveyed. DD holes were routinely collar and downhole surveyed by most operators or have been re-surveyed by subsequent operators. The influence of magnetic rocks on the azimuths of magnetic down hole surveys is minor. Early holes surveyed in AMG zone 51 and converted to MGA using Geobank and or Datashed data management software.



Criteria	JORC Code explanation	Commentary
Data spacing and distribution	 Data spacing for reporting of Exploration Results. 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. Whether sample compositing has been applied. Whether the orientation of sampling achieves unbiased sampling of possible structures and the 	 Billiton (RC, DD) Local Lights of Israel grid undergone 2-point transformation. Downhole surveys when performed were by undocumented method with a 25m interval average Consex (RC). Drilled on local grids (possibly truncated AMG84, zone 51). Holes appear to have been surveyed using AMG, zone 51 grid at a later stage. Numerous vertical holes not down-hole surveyed. Downhole surveys when performed were by undocumented method with a 9m interval average Cons Gold/DPPL (RC, DD) Local grids and AMG84 zone 51 used. RC and DD Collars surveyed by licensed surveyors to respective grids. Holes of all types routinely collar surveyed whist RC resource holes routinely downhole surveyed by various methods including gyro and EMS with average intervals ranging between 10-25m. Croesus (RC, DD) Various local grids and AMG zone 51. RC, DD holes routinely collar surveyed and downhole surveyed using Electronic Multishot (EMS), GRYO, Eastman single shot or combination thereof at 10-15m average interval. Hills (RC) Local grid used. OBM (RC, DD) MGA94 Zone 51. Drill hole collars are marked out and collar positions (post-drilling) picked up by a registered surveyor using RTK-GPS. Drill-hole, downhole surveys are recorded every 18-30m using a reflex digital downhole camera (RC) or Gyro tool (DD). Some RC holes were not surveyed if holes short and/or drilling an early stage exploration project. WMC (RC, DD) - Digital data provided by Cons Gold. (Warmex report a50226). Downhole surveys when performed were by undocumented method with a 16m interval average Data spacing nominally 20m x 20m but down to circa 10m x 10m and grade control drilling at circa 5m x 5m. Drill hole spacing is adequate to establish geological and grade continuity for the Waihi deposit for the purpose of Mineral Resource and Ore Reserve estimation. Composites of drill intercepts are length weighted, 1g/t lower cut-off, not top-cut, maximum 2m
geological structure	 If the relationship between the drilling orientation and the orientation of key mineralised structures is should be assessed and reported if material. 	 Walk local glid which is located and degrees from the MOA flott. Drill block inclinations range from -50 to -90°. At Homeward bound some drill holes were drilled down the structure in an attempt to better define the folding present. It is unknown whether the orientation of sampling achieves unbiased sampling, though it is considered unlikely as it the majority of holes have optimally intersected the mineralised lodes.
Sample security	The measures taken to ensure sample security.	 Undocumented for most early operators. Cons Gold – RC residues stored onsite OBM – Samples are bagged into cable-tied polyweave bags and stored in bulka bags in a secure yard. Once submitted to the laboratories they are stored in cages within a secure fenced compound. Samples are tracked through the laboratory via their LIMS.
Audits or reviews	 The results of any audits or reviews of sampling techniques and data. 	 OBM has reviewed historic digital data and compared it to hardcopy and digital (Wamex) records. Changes were made to the SQL database where necessary. No audits of sampling techniques have been done.

ORABANDA MINING 11.2 Section 1 Sampling Techniques and Data – Callion

Criteria	JORC Code explanation	Commentary
Sampling techniques	 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. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. 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. 	 Centamin - 90 and 130mm AC, RC drilling with 1m sampling using ECM350 Crawlair and Schramm T64 drill rigs respectively. Individual or 2m composite samples were analysed by both aqua regia and fire assay of undocumented charge and laboratory. Consolidated Gold - 1m sampling from RC rig. Potential mineralisation assayed on a metre basis at 2-3kg target weight - otherwise as 4m composites. Composites returning significant results were re-submitted as individual metres. Samples were pulverised and a 50g charge for Fire Assay performed. Crest - 1 m sampling of RAB holes from which 4m composite samples were submitted from which a 50g charge was used for fire assay (NRAB holes) or aqua regia (CLN holes). Croesus - RC, RAB and AC 1m samples collected under cyclone. 5m composite samples were crushed, pulverised and assayed for gold by 50g Fire assay. HQ Diamond core was halved and sampled over the entire hole at 1m and 0.5m intervals. Core samples were set to Ultratrace Laboratories of Perth and analysed for Au, Pt and Pd by fire assay (50gm charge fire assay. Delta - RC and RAB 5 metre composites for a 50g charge by aqua-regia analysis. 1m re-samples and NQ2 diamond tail core were milled and assayed by 50g charge fire assay. Eastern Goldfields Limited (EGS) - 1m RC samples using face sampling hammer with samples collected under cone splitter. 1m and 4m composite samples intervals selected by geologist and defined by geological boundaries. Samples are crushed, pulverized and a 40g charge is analysed by Fire Assay. Lonestar - RC drilling, im sampling and logging. 3m composites or 1m samples were crushed, pulverised and analysed by Fire assay. Lubbock - 1m RC drilling with composite samples of 2m in length and 1m in areas of quart veining or areas of interest. Analysis by aqua regia with re-assay by fire assay at SGS Kalgoorlie or Comlabs. RC Laterite assaying by aqua regia only. RAB assay methods undocumented. Not all
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). 	 Centamin - Aircore 90mm and RC 130mm diameter holes (Conventional hammer) Consolidated Gold - RC Face sampling hammers. Undocumented diameter and bit size. Crest - RAB - details undocumented Croesus - Diamond holes HQ diameter. RC with 5.5-inch face sampling hammer and 4-inch RAB holes Delta - RAB and RC - details undocumented. NQ2 diamond tails Lonestar - RC drilling details undocumented. Presumably industry standard of 5.5-inch face sampling hammer. Lubbock - RAB, RC and Diamond details of which are undocumented for all types. Diamond drilling was of NQ diameter and included pre-collars and tails and wedges. Core was not oriented. Monarch - RAB samples were collected by Kennedy Drilling using a 4-inch blade. Ora Banda Mining Limited (OBM) – 5.5 – 5.625-inch diameter RC holes using face sampling hammer with samples collected under cone splitter. Core holes have RC pre-collars up to 150m depth, then NQ2 coring to BOH. All core oriented by reflex instrument.



Criteria	JORC Code explanation	Commentary
		 Eastern Goldfields Limited (EGS) - 5-inch diameter RC holes using face sampling hammer with samples collected under cone splitter. HQ3 coring to approx. 40m, then NQ2 to BOH. All core oriented by spear and/or reflex instrument WMC - RAB details undocumented
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 sample bias may have occurred due to preferential loss/gain of fine/coarse material. 	 Historic operators have not captured recovery data from RAB or RC drilling. Eastern Goldfields Limited (EGS) - Diamond drill recoveries are recorded as a percentage calculated from measured core against downhole drilled intervals (core blocks). Ora Banda Mining Limited (OBM) – RC drilling recoveries recorded on a pre metre basis based on sample size. Diamond drill recoveries are recorded as a percentage calculated from measured intervals (core blocks). There is no known relationship between sample recovery and grade.
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 and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. 	 In all cases, entire holes were geologically logged Centamin - Basic descriptive logging with quartz and weathering notations Consolidated Gold - Qualitative: Lithology, colour, Oxidation, alteration, sulphides, structure, moisture. Quantitative: logging applied to veining percentage Crest - Qualitative: Lithology, Colour, Oxidation, alteration, grainsize. Quantitative: logging applied to veining percentage Croesus - All DD holes photographed, geologically logged and geotechnical and magnetic susceptibility measurements were taken. Qualitative: Lithology, colour, grainsize, alteration, oxidation, texture, structures, regolith. Quantitative: Quartz veining Delta - Colour, oxidation, structural, lithology, alteration, veining, mineralogy Lonestar - Colour, oxidation, logy, alteration, veining, minerals Lubbock - Logging of diamond holes was descriptive. Qualitative: Lithology, alteration. Alteration. Quantitative: Sulphide, Mineral, Veining Ora Banda Mining Limited (OBM)- Qualitative: Lithology, colour, oxidation, grainsize, texture, structure, hardness, regolith. Quantitative: estimates are made of quartz veining, sulphide and alteration percentages. Magnetic susceptibility recorded on a per metre basis in core holes. Core hole RQD logged. Core photographed wet and dry. Bulk density determination using Archimedes Principle is routinely undertaken using whole core segments. Eastern Goldfields Limited (EGS) - Qualitative: Lithology, colour, oxidation, grainsize, texture, structure, hardness, regolith. Quantitative: estimates are made of quartz veining, sulphide and alteration percentages. Core photographed. WMC - No details available
Sub-sampling techniques and sample preparation	 If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all subsampling stages to maximise representivity of samples. 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. 	 All laboratories performed repeats conducted at the discretion of the laboratory Centamin - Methods undocumented. Samples mostly submitted on 1m basis with limited 2m composites Consolidated Gold - RC: Riffle split to 2-3kg; residue placed in plastic bags. Intervals of prospective mineralisation or of geological interest were dispatched as individual metres with the remainder of the hole composited to 4m by undocumented method. RAB 4m composite samples using PVC spear. Both RC and RAB composites returning >0.19ppm or .24ppm for Callion holes re-submitted as 1m samples. Samples were dried the pulverised in Mixer mill until 90% of sample is 106 microns or less. Duplicates at 1 in 20 frequency from residues submitted. Field duplicates submitted every 20th sample for RC, AC, and RAB Crest - All sub sampling techniques undocumented Croesus - 1m samples collected under cyclone. 5m comps, spear sampled with 50mm PVC pipe. Wet RC drill samples were thoroughly mixed in the sample retention bag and scoop sampled to form a composite sample. RAB and AC scoop samples taken from piles laid on ground. Five metre composite analytical samples, returning values greater than 0.1g/t gold, were riffle split (RC) or scoop (RAB, AC) at 1m intervals, where samples were dry, and grab sampled where wet.



Criteria	JORC Code explanation	Commentary
	Whether sample sizes are appropriate to the grain size of the material being sampled.	 Diamond tails were cut to half core and sampled based on geological boundaries and identified prospective zones. Sample size varied from 0.5m to1m. Core samples were sent to Ultratrace Laboratories of Perth The analytical samples were dried, crushed and split to obtain a sample less than 3.5kg, and then fine pulverised prior to a 50gm charge being collected and analysed. Delta - 5m composites by scoop re-submitted as 1m scoop samples if composite result >0.1ppm Au. Core was cut in half. Mixer mill lab preparation. Duplicates submitted although frequency unknown Lonestar - 1m samples and 3m composites by undocumented methods Lubbock- RC drilling with samples of 2m in length and 1m in areas of quartz veining. Splitting and compositing methods undocumented. RC laterite sampling/assaying on individual metre basis. RAB sampling methods undocumented. Core was cut by diamond saw but proportion undocumented. Average sample length of approximately 1m. Monarch - Samples were composite to 2-4m by scoop. Duplicates are taken 1 in 25 when taking 1m splits straight from the rig. When doing re-splits on composite results 1 in 20 duplicates with occasional triplicates (about 1 every 50 re-splits). Ora Banda Mining Limited (OBM) – RC samples were submitted as individual 1m split samples (cone splitt) or composited to 4m by PVC spear. Half-core samples cut by automated core saw. Core sample intervals selected by geologist and defined by geological and/or mineralisation boundaries. RC samples were dried, crushed, split, pulverised and a 50gm charge taken. Field duplicates, blanks and standards were submitted as individual samples. Half core samples were composited to 4m by scoop or submitted as individual samples. Half core samples were dried, crushed, split, pulverised and a 50gm charge taken. Field duplicates, blanks and standards were submitted for QAQC analysis. Eastern Goldfields Limited (EGS) - Samples were composited to 4m by scoop or submitted as individual sa
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. 	 Wild - I'm samping of chips by undocumented method Aqua regia is considered a partial technique whilst Fire Assay is considered total. Centamin - Both aqua regia and fire assay of unknown charge size and laboratory. Consolidated Gold - Mixer mill prep with fire assay 50g charge at AMDEL or Analabs Laboratories in Kalgoorlie. Standards supplied by Gannet Labs. Standard results falling outside 2 standard deviations queried and checked. MWRC holes showed variance with grade indicating possible coarse gold. Crest - NRAB holes 50g fire assay/AS to 0.01ppm. CLN holes analysed by ALS for Gold by method PM 205 (50 gm aqua regia digest / solvent extraction / graphite furnace AAS) Croesus - Analysis for gold (Fire assay/ICP Optical Spectrometry) by Ultratrace Laboratory in Perth. Diamond core analysed for Au, Pt and Pd by fire assay at Ultratrace Perth. Every 20th sample was duplicated in the field and submitted for analysis. Gannet standards and blank samples made by Croesus were submitted with split sample submissions. RC drilling included a standard followed by a blank sample submitted every 50th and 51st sample respectively. Delta - 5m comps: Total mixer mill prep, Aqua-regia with 50g charge, 0.01ppm detection limit. 1m samples and core: as above but with fire assay. Genalysis Kalgoorlie or ALS Kalgoorlie. Umpire pulp analysis by ALS laboratories using original pulp residues Lubbock - Core was fire assayed, detail undocumented. RC (non-laterite) samples by aqua regia and results returning 1.0g/t were re-assayed by fire assay at Comlabs Kalgoorlie. 23 pulps from laterite drill program were split and sent to 3 other labs. Screen fire assays performed on 1984 Glasson drilling (Wamex report A16848). Monarch – RAB samples analysed at SGS by 50g aqua regia/AAS. Standards: 1 in every 20 samples for RC drilling and 1 in 25 for RAB drilling (comps).



Criteria	JORC Code explanation	Commentary
		 Ora Banda Mining Limited (OBM) - Samples sent to Intertek, SGS and Nagrom laboratories. The samples have been analysed by firing a 50gm portion of the sample. This is the classical fire assay process and will give total separation of gold. An ICPOES finish is used. Commercially prepared standard samples and blanks are inserted in the sample stream at a rate of 1:20 for standards and 1:20 for blanks. Sizing results (percentage of pulverised sample passing a 75µm mesh) are undertaken on approximately 1 in 40 samples. Duplicate samples are taken in RC drill holes at a rate of approximately 1:30. The accuracy (standards) and precision (repeats) of assaying are acceptable. Eastern Goldfields Limited (EGS) – as per OBM WMC - No details found - DB states FA-AAS
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. 	 Twinned holes were not routinely used by previous operators. Monarch Gold Mining Company Ltd; Geological and sample data was logged digitally and .csv or .xls files imported into Datashed SQL database with in-built validation. Samples bags were put into numbered plastic bags and then cable tied. Samples collected daily from site by laboratory Eastern Goldfields Limited (EGS) - Geological and sample data logged directly into field computer at the core yard using Field Marshall. Data is transferred to Perth via email and imported into Geobank SQL database by the database administrator (DBA). Assay files are received in .csv format and loaded directly into the database by the DBA. Hardcopy and/or digital copies of data are kept for ref Ora Banda Mining Limited (OBM) - Geological and sample data logged directly into field computer (Panasonic Toughbook CF-31) at the core yard or at the drill rig using Geobank Mobile. Data is exported from the logging computer, copied onto the company servers and imported into Geobank SQL database by the database administrator (DBA). Assay files are received in .csv format and loaded directly into the database administrator (DBA). Assay files are received into Geobank SQL database by the database of the logging computer, copied onto the company servers and imported into Geobank SQL database by the database administrator (DBA). Assay files are received in .csv format and loaded directly into the database administrator (DBA). Assay files are received in .csv format and loaded directly into the database administrator (DBA).
Location of data points	 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. Specification of the grid system used. Quality and adequacy of topographic control. 	 Data entry, Verification and storage protocols for remaining operators is unknown. Centamin – Accuracy of collars and downhole survey unknown. Collars located on Centamin local grid using theodolite and chain. Consolidated Gold - All collars surveyed by licensed surveyors to respective grids. CNRC holes used in Callion deposit resource were downhole surveyed with Eastman single shot using aluminium collar above hammer. Local grids with 2 point transformation to AMG84 zone 51 grid Crest - Collars were un-surveyed post drilling, located on AMG84 zone 51 grid Croesus - Majority of Croesus RC and DD holes were collar surveyed. An exception appears to be the TTRC holes. Local grid was used. Diamond and CNRC prefixed holes were downhole surveyed by EMS with readings every 5 to 10 metres. Delta - No holes appear to have been surveyed by collar or downhole. AMG84 zone 51 grid Lonestar - Collars were surveyed upon completion by an undocumented method. Glasson Local grid. Lubbock- Diamond holes down-hole surveyed every 24m by Eastman camera. Local grids originally utilised. Selected diamond holes were surveyed post drilling MGA94 zone 51 grid using Trimble DGPS. Monarch - No RAB holes were surveyed post drilling MGA94 zone 51 grid used. No down hole surveying contractors using RTK GPS (sub-cm accuracy). Subsequent to drilling, holes are picked up using a Trimble DGPS subsequent to drilling. Initied (CGS) - MGA94, zone 51. Drill hole collar positions are picked up using a Trimble DGPS subsequent to drilling. Drill-hole, downhole surveys are recorded every 30m using a reflex digital downhole camera. Some RC holes not surveyed if holes short and/or drilling an early stage exploration project.

ORABANDA

Criteria	JORC Code explanation	Commentary
Data spacing and distribution	 Data spacing for reporting of Exploration Results. 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. Whether sample compositing has been applied. 	 Historic data spacing highly variable from wide spaced ~800m x ~80m regional RAB to close spaced resource drilling ~20m x ~20m and grade control drilling at ~5m x ~5m. Drill hole spacing is adequate to establish geological and grade continuity for the Callion deposit. Drill intercepts are length weighted, 1g/t lower cut-off, no top-cut, maximum 2m internal dilution.
Orientation of data in relation to geological structure	 Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. 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. 	 For most of the deposits in and around Callion the prevailing geological and structural trend is approx. North-South. Once the orientation of mineralisation was established drilling was mostly oriented between 255° and 270° or 75° and 80°. Holes were generally inclined between 50° and 65° for RC and DD. It is unknown whether the orientation of sampling achieves unbiased sampling, though it is considered unlikely.
Sample security	The measures taken to ensure sample security.	 Eastern Goldfields Limited (EGS) - Samples were bagged, tied and in a secure yard. Once submitted to the laboratories they are stored in cages within a secure fenced compound. Samples are tracked through the laboratory via their LIMS. Monarch - Pre-numbered sample bags were put into numbered plastic bags. These numbers were written on the submission forms which were checked by the geologist. Plastic bags were then securely cable tied and placed in a secure location. Samples were then picked up by the Lab in Kalgoorlie or deliver to Perth via courier. A work order conformation was emailed to Monarch personnel for each sample submission once samples were received by the Laboratory. Ora Banda Mining Limited (OBM) - Samples were collected on the day of drilling and bagged into cable tied polyweave bags. Polyweave bags are stored into bulka bags on pallets in a secure yard on-site. Once submitted to the laboratories they are stored in cages within a secure fenced compound. Samples are tracked through the laboratory via their LIMS. No documentation for other operators
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	 OBM has reviewed historic digital data and compared it to hardcopy and digital (Wamex) records. No audits of sampling techniques have been done.

11.3 Section 2 Reporting of Exploration Results - Waihi

Criteria	JORC Code explanation	Commentary
Mineral tenement	Type, reference name/number, location and	All tenure pertaining to this report is listed below
and land tenure status	 and land tenure 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. 	TENEMENT HOLDER Expiry Date AGREEMENTS
		M30/255 CARNEGIE GOLD PTY LTD. 10/01/2038 Nil
		 Carnegie Gold PTY LTD is a wholly owned subsidiary of OBM. There are no known heritage or native title issues. There are no known impediments to obtaining a licence to operate in the area.



Criteria	JORC Code explanation	Commentary
Exploration done by other parties	 Acknowledgment and appraisal of exploration by other parties. 	 Modern exploration commenced at the Davyhurst sites in the 1980s. Three companies, Jones Mining, Western Mining Corporation (WMC) and Hill Minerals pegged claims surrounding the historic Davyhurst sites. In 1986, WMC established a 300,000 tonne per annum carbon-in-pulp (CIP) treatment plant at Davyhurst and commenced open pit mining at Golden Eagle and Waihi. In 1988 WMC's and Jones Mining's assets were acquired by Consolidated Exploration Ltd. Consolidated Exploration then developed open cut mines at Great Ophir, Lady Eileen, Lady Eileen South and Homeward Bound. At about the same time Aberfoyle Resources / Hill Minerals commenced open-pit mining at the Lights of Israel Deposit and trucked the ore 80 km to the Bardoc processing plant. During 1995/96 Consolidated Exploration Ltd. restructured as Consolidation of holdings in the district. In December 1996 CGNL acquired the assets of Aberfoyle Resources in the area, including the Bardoc Processing plant, in an equity transaction. The Bardoc plant was relocated to the Davyhurst site and upgraded to 1.2 Mt/y. In October 1998 Davyhurst Project Pty Ltd (DPPL), a subsidiary of NM Rothschild and Sons (Australia), acquired the project. In 2000, Croesus Mining NL ("Croesus") acquired the Davyhurst Project and continued operations until 2005. In January 2006, Monarch Gold Mining Company Limited (Monarch) acquired Davyhurst and operated the project until 2008. Drilling, sampling and assay procedures and methods as stated in the database and confirmed from Wamex reports and hard copy records are considered acceptable and to industry standards of the time. There is sufficient understanding of drilling, sampling and assay methodologies for the majority of drilling in the Waihi area. The company is confident that previous operators completed work to standards considered acceptable for the time. As part of each resource upgrade, OBM is committed to additional drilling to confirm the style, widths and tenor of mineralisation at each deposit.
Geology	Deposit type, geological setting and style of mineralisation.	 Regional Geology - Rocks of the Coolgardie domain (Kalgoorlie Terrane) are prevalent in the Davyhurst area. Rocks of the Coolgardie Domain are not well exposed at Davyhurst and the distribution of rock types suggests that it is mainly represented by the upper part of the stratigraphic sequence, namely basalts, felsic volcanics and sedimentary rocks. The abundant ultramafic-mafic sills of the Ora Banda Domain do not occur in the Coolgardie Domain. Granitoids in the Davyhurst Project area can be classified by magnetic signature into three types: low, medium and high magnetic response. Binns et al. (1976) distinguished 'static style' and 'dynamic style' regional metamorphism. Static style areas generally occupy the central, low-strain part of the greenstone regions away from the granitoids and typically have lower metamorphic grades (prehnite-pumpellyite to upper greenschist facies). Strain is concentrated in narrow zones so that textures are well preserved in more massive and competent rocks. Dynamic-style areas of greenstone have higher metamorphic grades (upper greenschist to upper amphibolite facies) and are characterized by more pervasive foliation, particularly along the contacts with large granitoid terrains. There appears to be two major controls on mineralisation in the Davyhurst area. Both mineralisation styles rely on mineralisation taking place during reactivation of earlier ductile shear zones. In the case of the Lights of Israel group of deposits, the early shear is steeply west dipping. In the northern portion of the Davyhurst tenements most gold mineralisation is aligned in planar corridors that have N-to NV-trends. The overall dip of the mineralised corrifors is mostly steep (~75°) E- or W-dipping with moderate to steep (~60°) and shallow-dipping (~15°) ore zones at the Federal Flag and Lady Gladys deposits, respectively. Within these planar corridors at individual deposits are common and discussed later. Mineralisation at the Lights of Israel and Makai deposits differs from the other



Criteria	JORC Code explanation	Commentary
		loads and broad alteration haloes. Mineralisation also appears to have a moderate northerly plunge of approximately 40° towards 340°. Folding is common at Waihi and numerous folds and re-folded folds are noted in pit and in in drill core. Fold hinges have a consistent ~40° plunge to the north. Within the deposit there is a pervasive biotite alteration halo. Associated with gold mineralisation, biotite plus silica and quartz veining occur. Higher grade gold mineralisation is generally associated with extreme silica flooding and quartz veining which has destroyed the majority of the rock fabric. Diopside as an alteration mineral also occurs throughout the resource. Quartz veining sub parallel to, or cross cutting the regional fabric also occurs within the deposit. These veins are discontinuous and can form boudins with the ore zone. Grade distribution within these blobs is erratic (Lennartz, 1988). Controls on ore shoots within the resource are not well understood at this stage. From the data available there appears to be a major zone of mineralisation plunging north from the south end of the Waihi pit. From the old stope plans of the Waihi Shaft, it would appear that the higher grade mineralisation has a steeply dipping lensoidal shape, with occasional glory holes, which WMC inferred were fold hinges. Around the Homeward Bound and east lode areas the higher grade mineralisation appears to have a 40° plunge to the north. Pyrrhotite, pyrite and arsenopyrite are the dominant sulphides within the resource. Trace to accessory concentrations of chalcopyrite, pentlandite, gesdorfite, and bismuth have been recognised
Drill hole Information	 A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: easting and northing of the drill hole collar 	 Individual drill intercepts are previously reported. For previous announcements relating to Waihi please refer to ASX announcement dated 22 February 2017, 29 July 2019, 14 October 2019, 6 November 2019, 22 November 2019, 24 December 2019, 21 January 2020 Any widths reported in a Significant Intercepts table are all down hole lengths.
	 elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. 	
Data aggregation methods	 In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated. Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal 	 Original assays are length weighted. For reporting exploration results grades are not top cut. Lower cut off is nominally 0.5g/t. Maximum 2m internal dilution. No metal equivalents reported
Relationship	equivalent values should be clearly stated.These relationships are particularly important in the	Intercept widths are down hole lengths. True widths are not reported given the varying orientation of drilling and mineralisation
between mineralisation	reporting of Exploration Results.If the geometry of the mineralisation with respect to	at each deposit/prospect mentioned in the report.



Criteria	JORC Code explanation	Commentary
widths and intercept lengths	 the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known'). 	
Diagrams	 Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views. 	See plans and sections provided within this announcement.
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.	 Results reported include both low and high gram metre (g/t x down hole length) values. The significant intercept table (previously reported – see references in Section on Drill hole Information) provides details of drill hole intercepts shown on diagrams. There is no lower cut-off grade, the holes listed include those with NSI (no significant intercept). Holes in the significant intercept table are shown on diagrams coloured according to gram metre grade bins. This provides spatial context to the number of holes in the project area with significant gold intercepts versus the number of holes with lesser or no significant intercepts
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	 Metallurgical and geotechnical work has been completed for numerous previously mined deposits, including Waihi. Waihi deposit was previously mined and processed at Davyhurst plant with no known metallurgical issues. Ongoing geological/ structural evaluation to determine the controls on mineralisation New metallurgical holes from Waihi have been drilled and are being tested. Results are pending. Geotechnical holes have been planned, drilling to commence soon.
Further work	 The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	 Data evaluation and geological assessment of all deposits, including Waihi, will be followed by additional resource drilling and updated JORC 2012 compliant Mineral Resources. Local exploration targeting extensions to the south and east of Waihi are proposed.

11.4 Section 2 Reporting of Exploration Results - Callion

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 	 The Callion deposit is located on M30/103 M30/103 is held by Carnegie Gold Pty Itd, a wholly owned subsidiary of Ora Banda Mining Limited Pursuant to the Crown Diamonds Royalty Agreement, a royalty is payable on all material mined and processed from M30/103 of: \$1.00 per tonne if the grade is equal to or less than 3.0 grams per tonne. \$2.50 per tonne if the grade is greater than 3.0 grams per tonne but equal to or less than 4 grams per tonne. \$4.00 per tonne if the grade is greater than 4.0 grams per tonne; and



Criteria	JORC Code explanation	Commentary
	obtaining a licence to operate in the area.	 \$5.50 per tonne if the grade is greater than 7.0 grams per tonne and the ore is extracted by underground operations. The royalty was payable severally 60/40 to two parties but the Company's predecessor in title acquired the 60% royalty entitlement under a buy-back arrangement. The Company remains liable to pay 40% of the royalty to Crown Diamonds Pty Ltd. There are no known heritage or native title issues.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	• Drilling, sampling and assay procedures and methods as stated in the database and confirmed from Wamex reports and hard copy records are considered acceptable and to industry standards of the time. There is sufficient understanding of drilling, sampling and assay methodologies for the majority of drilling in the Callion area. The company is confident that previous operators completed work to standards considered acceptable for the time. As part of each resource upgrade, Ora Banda Mining Ltd will commit to additional drilling to confirm the style, widths and tenor of mineralisation at each deposit.
Geology	Deposit type, geological setting and style of mineralisation.	 Callion lies in the Barlee Terrain, West of the Ida Fault. The Mount Ida Greenstone Belt of the Barlee Terrane in the Callion area is described by Wyche & Witt (1994), as an east-dipping sequence of tholeiitic basalt and dolerite intercalated with several BIF and shale units in the east. The westernmost, and presumably the lowermost (as facing is indeterminate), rock type mapped in the area is a +700m thick sequence of sandstone, wacke, shale, chert and banded iron formation (herein terred BIF), interleaved with several sills of dolerite and gabbro. The chert and BIF units define a prominent range of hills, whereas the sandstone and shale units, together with the mafic sills are recessive features. The BIF units become chertier and less magnetic towards the east. These rocks are overlain by a ~100m thick sequence of thilly bedded shale, siltstone and fine grained sandstone with thin interbeds of chert. Bedding in the BIF's generally dips at 45° to the east, although it can range between 25° and 75°. The BIF's and cherts become progressively higher metamorphic grade in a northward direction (i.e. along strike). Overlying the fine grained sediments is a 250-600m thick composite dolerite and gabbro sill that is thickest in the centre of the area and thinnest at the southern limit of the mapping. To aid description this sill is herein termed the Lady Mary Sill. East of the Lady Mary Sill is a ~1500m thick sequence of basalt that displays pillow structures, amygdales, and rare variolitic flows. Interflow sediments are absent from this thick pile of basalt. Intruded into the basalt is ~1000m of dolerite spread over two dozen discrete sills ranging from 20m the X-s along the eastern side of the mapped area. The eastern boundary of the mapped area was arbitrary; however, a strong shear zone is present on the eastern flank of the easternmost outcrop mapped and coincides with a distinctive linear high in magnetic data. Intruding the basalt and dolerite rocks east of the Lady Mary Sill in the orthern half of
Drill hole Information	 A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: easting and northing of the drill hole collar 	 Individual drill intercepts previously reported. For previous announcements relating to Callion please refer to ASX announcement dated 24 November 2016, 10 January 2017, 20 February 2017, 31 August 2017, 28 January 2020, 3 March 2020, 30 April 2020. Any widths reported in a Significant Intercepts table are all down hole lengths.



Criteria	JORC Code explanation	Commentary
	 elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. 	
Data aggregation methods	 In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated. Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated. 	 Original assays are length weighted. For reporting exploration results grades are not top cut. Lower cut off is nominally 0.5g/t. Maximum 2m internal dilution. No metal equivalents reported.
Relationship between mineralisation widths and intercept lengths	 These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length true width not known') 	 All intercept widths reported are down hole lengths. No attempt has been made here to report true widths. Generally, resource drilling was drilled at orientations perpendicular to the established trend of mineralisation.
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. 	Refer to diagrams in release.
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. 	 Results reported include both low and high gram metre (g/t x down hole length) values. The significant intercept table (previously reported – see references in Section on Drill Hole Information) provides details of drill hole intercepts shown on diagrams. There is no lower cut-off grade, the holes listed include those with NSI (no significant intercept). Holes in the significant intercept table are shown on diagrams coloured according to gram metre grade bins. This provides spatial context to the number of holes in the project area with significant gold intercepts versus the number of holes with lesser or no significant intercepts.
Other substantive exploration data	 Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or 	 Callion deposit was previously mined and processed at Davyhurst plant with no known metallurgical issues. New metallurgical holes from Callion have been drilled and are currently being tested. Results are pending. New geotechnical holes at Callion have been drilled with results currently being reviewed by external geotechnical consultants. All exploration data believed to be meaningful and material to this release has been included.



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Criteria	JORC Code explanation	Commentary
	contaminating substances.	
Further work	• The nature and scale of planned further work (e.g.	Further data evaluation and geological assessment of drilling conducted at the Callion deposit.
	tests for lateral extensions or depth extensions or	Metallurgical and geotechnical studies are ongoing.
	large-scale step-out drilling).	Geological and resource modelling targeting underground potential at Callion.
	Diagrams clearly highlighting the areas of possible	
	extensions, including the main geological	
	interpretations and future drilling areas, provided the	3
	information is not commercially sensitive.	

11.5 Section 3 Estimation and Reporting of Mineral Resources - Waihi

Criteria	JORC Code explanation	Commentary
Database integrity	 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. Data validation procedures used. 	 Data from EGL/OBM drilling captured into Field Marshall logging software. Data sent from site and imported into SQL database via DBMS. Validation checks in SQL database are carried out to ensure data integrity is not compromised. The data is verified by company geologists before being sent to the DBA for validation or passing Geobank Software validation protocols Historic data has been verified by checking historical reports on the project. The Competent Person has undertaken a number of validation checks on the database, using Micromine software which include, but are not limited to, checks for overlapping intervals, checks for missing data/records, visual checks on drill hole locations and traces to identify any possible survey issues. No major issues were detected.
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 indicate why this is the case. 	 Numerous site visits have been completed by the Competent Person with the following objectives: View geology in existing open pit View drilling operations View and log drill core
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 factors affecting continuity both of grade and geology. 	 Mineralised structures at Waihi strike from 320° to 345° and are steeply west dipping. Mineralised lodes at Homeward Bound strike 325° and are steep east dipping. The main Waihi lodes are interpreted to be the west limbs of a tightly folded antiform. Homeward Bound lodes are the east limbs of the same antiform. Late stage E-W structures have been mapped and may offset the mineralised lodes slightly. These structures have also been exploited by thin pegmatite dykes. Geology model proposed by Model Earth PTY. LTD following a site visit to map pit exposures and selected core Structural data from OBM drilling was used to guide the orientation of mineralised lodes where possible. Inspection of core, RC chips and pit exposures shows the mineralisation to be associated with biotite and silica alteration and quartz-carbonate veining. Geological continuity of mineralised strictures is well defined, although sometimes terminate abruptly, possibly due to the minor offsets caused by the E-W structures. The main lodes at Waihi are geologically continuous over 0.9 km and are known to extend a further 400m south to the Dexy prospect. Grade continuity is less extensive but well defined at a low cut-off grade (0.4g/t)
Dimensions	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.	 The main lodes at Waihi are geologically continuous over 0.9 km in a N-S direction and defined to a depth of 200m below surface. The Homeward Bound Lodes are continuous over 0.3 km in a NW-SE direction and defined from surface to a depth of 230 m below surface.

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Criteria	JORC Code explanation	Commentary
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. 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 characterisation). In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. Any assumptions about correlation between variables. Description of how the geological interpretation was used to control the resource estimates. Discussion of basis for using or not using grade cutting or capping. The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available. 	 Ordinary Kriging (OK) and Localised Uniform Conditioning (LUC) was used to estimate gold grades into 3-dimensional block models. The same mineralisation wireframes were used for the OK and LUC estimations. LUC is a non-linear method able to estimate the grade distribution of small blocks relative to the available data spacing (i.e. Selective Mining Unit [SMU] sized blocks) without over-smoothing. Over-smoothing is common when using a linear method such as Ordinary Kriging (OK) on positively skewed and highly variable gold grade distributions, where the data spacing is relatively wide. Im composite samples coded to the mineralised domains used as inputs to estimation. Only RC and diamond drilling samples used for estimation. Estimation parameters derived from modelled semi-variograms. Micromine™ software was used for the OK estimation. LUC estimation. LUC estimates were exported from lisatis was imported into Micromine™ for further processing. High grade cuts up to 45 g/t were applied to 1m composite data based on analysis of individual domains. The parent block dimensions used were 10mN by ZmE by 10mRL with sub-cells of 1m by 0.5m by 1.0m. Drill hole spacing is approximately 20m between section and 20m along section. The parent block size was selected (approx. 50% of data spacing)) using QKNA. The LUC selective mining unit (SMU) was 2m NS by 2.5m EW by 2.5m vertical. An orientated ellipsoid search was used to select data and was based on Kriging Neighbourhood parameters derived from the variography. Estimation completed in 3 runs each with less restrictive search, and minimum sample parameters. The initial interpolation pass was used with a maximum range less than the range of the principal direction of the modelled variograms. Maximum number of samples was 16, minimum was 4. A four-sector search was applied to maximise sample representivity in all directions. Range increased progressively and number of samples required
Moisture	 Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content. 	Tonnages and grades were estimated on a dry in situ basis. No moisture values were reviewed.
Cut-off parameters	 The basis of the adopted cut-off grade(s) or quality parameters applied. 	 The open pit Mineral Resource has been reported at a 0.5 g/t Au cut-off from the LUC model based on assumptions about economic cut-off grades for open pit mining. The portions of the Mineral Resource that exists below the pit shell was reported from the OK model using a 2 g/t cut-off grade, being an approximate estimate of the incremental cut-off for narrow vein underground open stoping.
Mining factors or assumptions	 Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is 	 It is intended to adopt a selective open cut mining practise at the deposit. Reasonable prospects for eventual economic extraction for the Waihi Mineral Resource update was confirmed by applying the conceptual AU\$2,400 per ounce pit shell which was generated using the Mineral Resource block model described above. A



Criteria		JORC Code explanation	Commentary
		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.	 theoretical economic mining volumes was determined from the Indicated and Inferred material within the unconstrained Mineral Resource. Pit slopes used in the conceptual optimisation were based on preliminary geotechnical assessment of Waihi deposit. Allowance was made in the pit slopes for in-pit ramps. Assumed mining costs were applied on a progressive bench by bench basis using contractor supplied budget quotations for the Davyhurst project received in October 2018 for the Davyhurst project area. The average mining costs for the pit shell was estimated to be \$4.21 per tonne of material mined which included the cost to remove the existing tailings. A dilution factor of 15% and mining recovery of 95% was applied to define the theoretical economic mining volumes within the pit shell. The conceptual combined haulage, processing and administration cost applied was \$39.33 per tonne processed and process recoveries of between 92% and 93% were applied based on weathering domains. The underground cut-off was based on a mining cost of \$140 per tonne of ore, a dilution of 15% and mining recovery of 95%. With the exception of the underground cut-off, no other modifying factors were applied to the underground portion of the Mineral Resource.
Metallurgical factors	or	The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as	 Waihi has no known reported metallurgical issues and has been previously mined. Results from previous processing (using CIP) have demonstrated that good gold recovery can be expected from modern
assumptions		part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the	 Recent test work from Waihi ores give the following recoveries: Oxide = 94%
		assumptions regarding metallurgical treatment	• Transitional – 92%
		Mineral Resources may not always be rigorous.	\circ Fresh – 90%
		Where this is the case, this should be reported with an explanation of the basis of the metallurgical	
	_	assumptions made.	
factors	or	 Assumptions made regarding possible waste and process residue disposal options. It is always 	 The area is not located in an environmentally sensitive area so there is no reason to believe that environmental approvals would materially restrict development of the project and surface waste rock landforms for Waihi.
assumptions		necessary as part of the process of determining reasonable prospects for eventual economic	
		extraction to consider the potential environmental	
		While at this stage the determination of potential	
		environmental impacts, particularly for a greenfields	
		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	
Bulk density	+	Whether assumed or determined. If assumed, the	Bulk density determinations were derived from measurements (immersion method) made on recent core samples drilled by
		basis for the assumptions. If determined, the method	OBM. Results compared favourably with limited measurements taken by previous operators using the calliper method.
		measurements, the nature, size and	ore and waste.
		 representativeness of the samples. The bulk density for bulk material must have been 	 It is assumed there are minimal void spaces in the rocks within the Waihi deposit. Values applied in the Waihi block model are similar to other known bulk densities from similar geological terrains.
		measured by methods that adequately account for	
		void spaces (vugs, porosity, etc), moisture and	
		the deposit.	
		• Discuss assumptions for bulk density estimates used	



Criteria	JORC Code explanation	Commentary
	in the evaluation process of the different materials.	
Classification	 The basis for the classification of the Mineral Resources into varying confidence categories. Whether appropriate account has been taken of all relevant factors (i.e. 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). Whether the result appropriately reflects the Competent Person's view of the deposit. 	 Mineral Resources were classified in accordance with the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC, 2012). The classification takes account of confidence in the geological interpretation, sample density and assay QAQC. In order to avoid a mosaic style of classification, solid wireframes were constructed to encompass areas considered to adequately fulfil the requirement to be classified as either, measured, indicated or inferred: Measured – No areas of the current resource attained Measured status Indicated – Areas with drill spacing up to approximately 30 mE x 30 mN and with reasonable confidence in the geological interpretation and grade continuity Inferred – Areas with drill spacing in excess of 30 mE x 30 mN and where grade continuity is poorer as defined by a lower sample density, even though geological continuity may be apparent. The input data is comprehensive and of sufficient quality for use in the MRE. Significant recent drilling, covering the entire deposit, has confirmed the location and tenor of many historic drill-holes. Assay QAQC is of sufficient quality for the assays to be used in the MRE. There is sufficient understanding of the geology to support the current interpretation in terms of continuity. The Mineral Resource estimate appropriately reflects the view of the Competent Person.
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	The Waihi MRE has been reviewed by CSA Global.
Discussion of relative accuracy/ confidence	 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. The statement should specify whether it relates to global or local estimates, and, if local, state the relevant to the technical and economic evaluation. Documentation should include assumptions made and the 	 The Waihi Mineral Resource estimate is considered to be reported with a reasonable degree of confidence. The data quality is good and the drill holes from recent drilling have detailed logs produced by qualified geologists. Historic logging has been reviewed. The Mineral Resource statement relates to global estimates of tonnes and grade. Confidence in the estimate allows reasonable quantification of global metal content. However, at a local scale there are risks associated with the estimation. The interpretation is considered globally robust but at a local scale, variations to ore geometry can be expected. The deposit is not currently being mined. Waihi Production records up to December 1996 are available. Total ore reserves were 761Kt @ 2.41 g/t for 59,000 ounces. Mill production was 704Kt @ 2.39 g/t for 54,000 ounces.
	 procedures used. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available. 	

11.6 Section 3 Estimation and Reporting of Mineral Resources - Callion

Criteria	JORC Code explanation	Commentary
Database integrity	 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. Data validation procedures used. 	 Data from EGS/OBM drilling captured into Field Marshall logging software. Data sent from site and imported into SQL database via DBMS. Validation checks in SQL database are carried out to ensure data integrity is not compromised. The data is verified by company geologists before being sent to the DBA for validation or passing Geobank Software validation protocols. Historic data has been verified by checking historical reports on the project.



Criteria	JORC Code explanation	Commentary
		• The Competent Person has undertaken a number of validation checks on the database, using Micromine software which include, but are not limited to, checks for overlapping intervals, checks for missing data/records, visual checks on drill hole locations and traces to identify any possible survey issues. No major issues were detected.
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 indicate why this is the case. 	 Site visits have been completed by the Competent Person with the following objectives: View geology in existing open pit View drilling operations View drill core
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 factors affecting continuity both of grade and geology. 	 The geology of the system and the gold distribution is modelled as a set of sub-parallel, NNW-SSE striking, steeply dipping narrow lodes. The continuity of mineralisation and volume controls are reasonably well established where drilling is at a nominal 10m (X) by 10m (Y) hole spacing. The use of historical drilling provides a level of uncertainty as the company cannot validate all the QAQC data and downhole survey data. The selection of mineralised domains has used geological factors such as geological contacts, logged quartz and sulphides in conjunction with a 0.5g/t cut-off. Gold values transition from background to ore grades over a very short distance.
Dimensions	 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. 	 The reported mineralised corridor extends 900m NNW-SSE, up to 40m east/west (in multiple narrow lodes) and up to 150m vertically. Mineralised structures are present at surface for some lodes and have been mined by both open pit and underground methods.
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. The englishibits of check estimates province	 1m composite samples coded to the mineralised domains used as inputs to estimation. Only RC & diamond drilling samples used for estimation. Ordinary Kriging (OK) was used to estimate gold grades into a 3-dimensional block model. Estimation parameters were derived from modelled semi-variograms using Supervisor[™] software. Surpac[™] software was used for the estimation. High grade cuts up to 60 g/t were applied to 1m composite data based on analysis of individual domains. The parent block dimensions used were 5mE by 4mN by 5mRL with sub-cells of 0.25m by 0.5m by 1.25m. Drill hole spacing is down to approximately 10m between sections and 10m along section. The parent block size selected is approx. 50% of data spacing
	 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 characterisation). In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. Any assumptions behind modelling of selective mining units. Any assumptions about correlation between variables. 	 An orientated empsoid search was used to select data and was based on parameters derived from the variography. Estimation completed in 3 runs each with less restrictive search, and minimum sample parameters. The initial interpolation pass used a search range of 30m, the second pass 60m. The third pass search expanded to fill blocks. Maximum number of samples was 12, minimum was 6 and the maximum samples per hole was 4. No estimation of deleterious elements was carried out. Deleterious elements have not been recorded during mining of Callion. Copper is known to be present at Callion. Only Au was interpolated into the block model. Previous resource estimates have been completed in 2008 Open pit production records are available for Callion from mining in 2005. The mined tonnes were 37% higher than the reserve tonnes and the mined grade was 2.82g/t versus 2.29g/t for the reserve grade. 70% more ounces were mined. A comparison to the grade control model has not been done as yet. No assumptions have been made regarding recovery of by-products. Copper is present but has not been routinely assayed and is not modelled. Selective mining units were not modelled in the Mineral Resource. Only Au was estimated so correlation analysis was not possible The deposit mineralisation was constrained by wireframes constructed using a 0.5 g/t Au cut-off grade in association with logged geology. The wireframes were applied as hard boundaries.

Criteria	JORC Code explanation	Commentary
	 used to control the resource estimates. Discussion of basis for using or not using grade cutting or capping. The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available. 	 Grade Top cuts were selected to minimise the effect of isolated high-grade outliers, without severely reducing metal or cutting a large proportion of data. Top cuts were decided by using a combination of methods including grade histograms, log probability plots and statistical tools. The block model validation was carried out by three methods: Visual comparison of block grades with nearby drill assay results on a section by section basis. Statistical comparison of estimated grades and composite grades on a domain by domain basis. Trend analysis of estimated block model grades versus composite grades on 10m northing and 5m vertical intervals.
Moisture	 Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content. 	Tonnages and grades were estimated on a dry in situ basis. No moisture values were reviewed.
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	The Mineral Resource has been reported at a 0.5 g/t Au cut-off based on assumptions about economic cut-off grades for selective open pit mining.
Mining factors or assumptions	 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. 	 It is initially intended to continue open pit mining at Callion using a selective mining method. Reasonable prospects for eventual economic extraction for the Callion Mineral Resource update was confirmed by applying the conceptual AU\$2,400 per ounce pit shell which was generated using the Mineral Resource block model described above. A theoretical economic mining volumes was determined from the Indicated and Inferred material within the unconstrained Mineral Resource. Pit slopes used in the conceptual optimisation applied slope parameters typical of the region, with geotechnical assessments for the DFS in progress. Allowance was made in the pit slopes for in-pit ramps. Assumed mining costs were applied on a progressive bench by bench basis using contractor supplied budget quotations for the Davyhurst project received in March 2020 for the Davyhurst project area. The average mining costs for the pit shell was estimated to be \$3.93 per tonne of material mined which included the cost to remove a portion of the adjacent waste landform and rehabilitate the site. A dilution factor of 30% and mining recovery of 95% was applied to define the theoretical economic mining volumes within the pit shell. The conceptual combined haulage, processing and administration cost applied was \$34.66 per tonne processed.
Metallurgical factors or assumptions	• 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.	 Callion has no known reported metallurgical issues and has been previously mined. Results from previous processing (using CIP) have demonstrated that good gold recovery can be expected from modern conventional CIP processing methods. Recent test work from Callion ores give the following recoveries: Oxide – 91% Transitional – 91% Fresh – 90%
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 	 The area is not located in an environmentally sensitive area so there is no reason to believe that environmental approvals would materially restrict development of the project.

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Criteria	JORC Code explanation	Commentary
	assumptions made.	
Bulk density	 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. 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. Discuss assumptions for bulk density estimates used in the evaluation process of the different materials. 	 Bulk density determinations were derived from measurements (immersion method) on core samples Densities were applied based on weathering profile and whether in ore/waste. Bulk density values used in the resource for ore were oxide = 1.74 t/m³, transitional=2.5 t/m³ and fresh 2.78 t/m³. Waste densities were 1.74 t/m³ (oxide), 2.50 t/m³ (trans), 3.0 t/m³ (fresh Basalt) and 2.7 t/m³ (fresh Felsite). It is assumed there are minimal void spaces in the rocks within the Callion deposit. Values in the Callion block model are similar to other known bulk densities from similar geological terrains.
Classification	 The basis for the classification of the Mineral Resources into varying confidence categories. Whether appropriate account has been taken of all relevant factors (i.e. 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). Whether the result appropriately reflects the Competent Person's view of the deposit. 	 Mineral Resources were classified in accordance with the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC, 2012). In order to avoid a mosaic style of classification, solid wireframes were constructed to encompass areas considered to adequately fulfil the requirement to be classified as either indicated or inferred. Determining classification involved consideration of multiple factors including confidence in the geological model, continuity of mineralized zones, drill hole spacing, confidence in the underlying drill hole database, availability of bulk density information plus information and knowledge from previous mining. In part, the lodes have been drilled down to 10m x 10m spacing, and even areas of 5m by 5m grade control, on northing and easting, with drill lines running approximately ENE-WSW. Previous open pit and underground mining knowledge adds significantly to the confidence of the classification, albeit minor uncertainty on known underground voids. With all these factors considered, the resource estimate has in part been assigned to Indicated resources with the remainder to the Inferred category. No Measured resources have been assigned. The input data is comprehensive and of sufficient quality for use in the MRE. Significant recent drilling, covering the entire deposit, has confirmed the location and tenor of many historic drill-holes. Assay QAQC is of sufficient quality for the assays to be used in the MRE. There is sufficient understanding of the geology to support the current interpretation in terms of continuity. The Mineral Resource estimate appropriately reflects the view of the Competent Person.
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	The reported Mineral Resource Estimate has been reviewed by CSA Global.
Discussion of relative accuracy/ confidence	 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. 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. These statements of relative accuracy and confidence of the estimate should be compared with 	 The Callion Mineral Resource estimate reported with a reasonable degree of confidence. The data quality is good and the drill holes from recent drilling have detailed logs produced by qualified geologists. The Mineral Resource statement relates to global estimates of tonnes and grade. Confidence in the estimate allows reasonable quantification of global metal content. However, at a local scale there are risks associated with the estimation. The interpretation is considered globally robust but at a local scale variation to ore geometry can be expected.



11.7 Section 4 Estimation and Reporting of Ore Reserves

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	 Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve. Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves. 	 The Ordinary Kriged (OK) open pit Mineral Resources were completed by Ora Band Mining (OBM) and formed the basis for re-estimation of the resources by Localised Uniform Conditioning (LUC) method. CSA Global were engaged to produce LUC estimates at the SMU scale for Riverina, Waihi, Missouri and Sand King deposits, based on inputs provided by OBM. Golden Eagle underground resource estimate and the Callion open pit resource estimate and were completed using the OK method and details are available in the ASX announcements dated 8 April 2020 and 15 May 2020 respectively. The LUC estimates were used as the basis of the open pit Ore Reserve for Riverina, Missouri, Sand King and Waihi deposits. The OK estimates were used as the basis for the open pit Ore Reserve for Callion and the underground Ore Reserve for Golden Eagle. Mineral Resources are reported inclusive of the Ore Reserves.
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 indicate why this is the case. 	• The site was visited by Mr Geoff Davidson in DD May 20 th , 2020 who is the Competent Person for this Ore Reserve estimate. During the site visit, representative diamond drill core for each of the deposits was inspected for areas within the proposed mining envelopes. In addition, visits were made to each of the proposed mining locations and inspections were made of the existing plant site and associated infrastructure at Davyhurst. Mr Davidson is satisfied the conditions allowed for in this Ore Reserve estimate is consistent with the observations made during the site visit.
Study status	 The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves. The Code requires that a study to at least Pre- Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered. 	 This Ore Reserve estimate forms the basis for Definitive Feasibility study for the Davyhurst operation. The mining costs for Riverina, Sand King and Missouri open pits as well as Golden Eagle underground that were used to determine the economic mining envelopes and convert Mineral Resources into Ore Reserves are based on budget level mining costs specific to the locations considered for a similar scope of work. The mining costs for Waihi and Callion open pit were based on factored estimates using composited costs from other mining areas within the study. Further investigative and analytical work is required on rehandling and disposal of the tailings at Waihi. Both Waihi and Callion are considered to be at a pre-feasibility level of study. Waihi and Callion are schedule to be mined after the estimated project payback period. The mining study is considered to be at a feasibility level of confidence. The Ore Reserve was developed using an indicative mine plan which is considered to be technically feasible and economically viable. Modifying factors were applied when estimating the Ore Reserve from the Mineral Resource.
Cut-off parameters	The basis of the cut-off grade(s) or quality parameters applied.	 Cut-off grade parameters were determined using 2020 mining cost received from contractors in response to a preliminary request for quotation for the Sand King, Missouri and Riverina open pits as well as Golden Eagle underground. The requested used preliminary designs and schedules from earlier work carried out in 2019 and 2020. The mining costs include provision for rehabilitation of waste rock landforms. Ore haulage costs were provided by haulage contractors in response to a preliminary RFQ issued in 2020. Processing costs were compiled by GR Engineering Pty Ltd for the upgraded Davyhurst plant. Site general costs and administration overheads (G&A) were based on a preliminary estimate. Selling costs were based on quotation from the Perth Mint and Standard State Royalties were applied. Metallurgical process recoveries were based on metallurgical test work conducted in 2019 and 2020 and supervised by OBM's metallurgical consultant. A base price of A\$ 2100 per ounce was used to determine the economic mining envelope. Ore treatment cost include grade control, ore haulage, crusher loading, processing and site G&A. The costs vary between \$34 and \$42 per tonne depending on location and weathering classification. Selling costs inclusive of smelter charges and state royalties were estimated to be \$45 per ounce of recovered gold. No provision was made for third party royalties. The incremental cut-off grades for the open pits vary between 0.54 g/t and 0.77 g/t for the open pit, depending on location and weathering classification.

 The underground cut-off grade applied to Golden Eagle was estimated to be 2.7 g/t. This estimate includes provistope development and drill, blast, load and haul as well as mining overheads specific to underground. These mining overheads specific to underground. These mining overheads to be \$35 per tonne and income haulage and RoM operations. The process recovery was estimated to be \$2% for both operations. An increment cut-off of 0.7 g/t was applied to development, based on the ore treatment costs. For both open pit and underground operations the cut-off grades were applied to the diluted Mineral Resource, I case of the underground operations this was done following stope optimisation and design 	stimate includes provision for iderground. These mining \$35 per tonne and includes operations. An incremental d Mineral Resource, In the
 If the method and assumptions used as reported in the pre-frasability of convert the Mineral Resource to an OF Reserve (Le, alther a phoesing). The choice, nature and appropriate factors by optimisation of the pre-frasability of the optimisation and pre-production diffing. The choice, nature and appropriate factors by the provisions of or optimisation as pre-strip, cases, etc. The assumptions made and Mineral Resources are utilised in mining studies and the sensitivity of the uncorne of the sense of the conventional support. Fit designs generally reconciled within 12% or better of the generated pit shell. The assumptions made and Mineral Resources and Useral generation and the sensitivity of the uncorne of the mining exceeding appropriate. The mining didto stors used. Any mininum mining width used. The mining middle suges. The mining middle suges.	 derived from economic ge mining costs allowed for ons for drill, blast, load, haul, 12% or better of the planned around using a All material, excluding g ANFO or emulsion for ng pit excavations. te landform. This will require productivity rates and costing d ore loss. Ore faces will be nd operations blast holes for the basis of pit wall design and face sampling. e Reserve. All Inferred nically and economically n skin thickness varied e lode geometry. The thinner n the estimation. The thicker r. The global dilution factors Callion. punic cut off within the pit -vein long hole open stoping ed at Golden Eagle in the cost of ore drive development th of 0.7 m was used be

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		 The dilution allows for a skin of 0.3 m on both hanging wall and footwall. In addition, a nominal allowance of 5% dilution was included to account for unidentified dilution sources. The global dilution reconciled to 32% for Golden Eagle. The Golden Eagle Ore Reserves includes dilution of 34,000 t at 0.77 g/t. An incremental cut-off of 0.7 g/t was applied to ore drive development. This cut-off was applied on a cut by cut basis and allows for ore haulage, processing and sales. Each stoping level was evaluated for waste development costs to ensure the combined production from the level was above breakeven. Grade control will be by face sampling.
		 Infrastructure Most of the infrastructure required for the operations is already in place at the Davyhurst Project, including a process plant and associated infrastructure, camp, airstrip, offices, power reticulation, borefields and coreyards. A remote fly-camps will be constructed near the Missouri and Sand King operations. The Golden Eagle underground is readily accessible, and provisions are included to rehabilitate the relevant workings and re-establish mine services.
Metallurgical factors or assumptions	 The metallurgical process proposed and the appropriateness of that process to the style of mineralisation. Whether the metallurgical process is well-tested technology or novel in nature. The nature, amount and representativeness of 	 The proposed process for treating ore is conventional CIP with some gold recovered via gravity circuit. This is a standard gold processing flowsheet used throughout the industry for this style of mineralisation. Metallurgical test work was carried out on the fresh mineralisation domains for all deposits in this Ore Reserve estimate. Test work has also been completed for oxide and transitional domains at Riverina. Metallurgical recoveries for Sand King and Missouri oxide and transitional domains were assumed based on the metallurgical consultants past experience with similar
	 The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied. Any assumptions or allowances made for deleterious elements. The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole. For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications? 	$test e^{test} = Vestimate{Vestimate{Started} Vestimate{Started} Vest$
		 <i>#</i> Assumed value * All values are rounded to two significant figures 1. Subsequent test work estimated the Sand King transitional recovery to be 95.7% 2. Subsequent test work estimated the Riverina recoveries to be 90.1%, 97.6% and 94.3% for oxide, transition and fresh, respectively. 3. Subsequent test work estimated the Calion transitional recovery to be 91.3% and fresh to be 92.5% 4. Subsequent test work estimated the Golden Eagle fresh recovery to be 90.6% Metallurgical samples tested were taken from locations within their respective mining envelopes. Several samples were tested from domains defined by weathering state and geology. Results are considered to be a reasonable indication of expected metallurgical performance. The process plant will have a nominal throughput rate of 1.2 Mtpa based on a grind size of 106 µm. The process plant was operated successfully in the past and is currently on care and maintenance. Metallurgical testing was performed on diamond drill holes in well-known and recognised laboratories to standard test practices on enough samples to be representative of their respective different domains. Riverina test work has indicated and increased lime consumption compared other locations. Adjustment to the processing cost were included to allow for this. No other deleterious elements material to metallurgical performance were identified in the

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		material considered in this Ore Reserve.
Environmental	The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.	 All flora and fauna baseline studies have been completed for areas that may potentially be influenced by mining operations contemplated in this Ore Reserve estimate. No conservation significant taxa were identified as being at risk. Searches of Indigenous and European State Heritage Registers have not identified any sites that require active management. Potential environmental impacts will be risk managed as part of the DMIRS Mining Both historical and recent geochemical data indicate waste rock mass is non-acid forming. Tailings from ore processing will be stored within the existing Tailings Storage Facility (TSF). Allowance has been made for expansions to this facility as required by the mine plan. Tailings from the Waihi pit will be co-disposed with waste rock. Test work and design for this facility are ongoing The Competent Person is not aware of any reason why permitting will not be granted within a reasonable time frame.
Infrastructure	The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.	 Substantial infrastructure exists on-site from previous operations which ceased in 2018 and has been under care and maintenance since. Costs for refurbishment of this infrastructure was allowed for. Road train haul routes will be upgraded or modified for the proposed operations where required. Capacity of the existing tailings storage facility will be increased. A fly-camps will be constructed at the Siberia (Sand King / Missouri) mine site and communication to these facilities will be upgraded.
Costs	 The derivation of, or assumptions made, regarding projected capital costs in the study. The methodology used to estimate operating costs. Allowances made for the content of deleterious elements. The source of exchange rates used in the study. Derivation of transportation charges. The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc. The allowances made for royalties payable, both Government and private. 	 The capital estimate for the process plant and infrastructure was compiled as a first principles estimated by GR Engineering Pty Ltd using vendor quotes where applicable. The accuracy of the estimate is considered to be consistent with that required for feasibility study level. Mining and ore haulage costs were estimated from budget quotations provided by recognised contractors for a similar scope of work, using conventional detailed pricing schedule format. Power, diesel and accommodation costs were based on current vendor pricing. Staff costs were based on current market salary levels. Processing operating costs were estimated by GR Engineering Pty Ltd and consider the latest metallurgical test work. Overhead costs were estimated by OBM from first principles. No deleterious elements were identified or expected. All costs were quoted and compiled in Australian dollars. Nominal transport and security provisions were allowed for. No allowance was made for third party royalties; however, third party royalties are applicable to a portion of Sand King but have not been considered in this Ore Reserve estimate. They are applicable to approximately 50% of the Sand King reserve and account for 2% of the included revenue for that deposit.
Revenue factors	 The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc. The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products. 	 Revenue calculations were based on detailed mine plans and mining factors including provision for dilution and ore loss. The metal price used for revenue calculation was A\$2,100/oz before selling costs and is below the current spot price as of the date of this announcement. The price used is considered by Ora Banda Mining to be a conservative estimate of the medium-term gold price. Nominal transport and security provisions were allowed for to deliver the dore to the Perth mint. Smelter charges were based on budget quotations from the Perth Mint
Market assessment	• The demand, supply and stock situation for the	• There are no known major gold producers expecting to influence the global supply of gold over the period of the project.

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	 particular commodity, consumption trends and factors likely to affect supply and demand into the future. A customer and competitor analysis along with the identification of likely market windows for the product. Price and volume forecasts and the basis for these forecasts. For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract. 	Demand for gold is expected to be subject to usual global factors and global recovery from the Covid-19 pandemic.
Economic	 The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc. NPV ranges and sensitivity to variations in the significant assumptions and inputs. 	 The Ore Reserve estimate is based on a financial model prepared to a Feasibility Study level of accuracy. All inputs from open pit and underground operations, processing, transportation and sustaining capital as well as contingencies have been scheduled and evaluated to generate a full life of financial model. Economic inputs were sourced from suppliers, contractors or independent consultant databases. A discount rate of 6%pa was applied. The NPV of the project is positive at the assumed commodity price. The Competent Person is satisfied that the project economics based on mining the Ore Reserve retains a suitable margin of profitability. Sensitivities testing of the key operating and commercial parameters were conducted.
Social	 The status of agreements with key stakeholders and matters leading to social licence to operate. 	To the best of the Competent Persons knowledge all agreements are in place and current with all key stakeholders including traditional owner claimants.
Other	 To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: Any identified material naturally occurring risks. The status of material legal agreements and marketing arrangements. The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or feasibility of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent. 	 No material risks specific to the project have been identified. All proposed mining operations are contained within granted mining leases 100% owned by Ora Banda Mining. The approvals process for commencement of mining operations is underway. Based on the information provided, the Competent Person is unaware of any reason approvals will not be successfully granted within the anticipated timeframe.
Classification	 The basis for the classification of the Ore Reserves into varying confidence categories. Whether the result appropriately reflects the Competent Person's view of the deposit. The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any). 	 The Probable Ore Reserves are based on that portion of the Measured and Indicated Mineral Resource within the mine design that may be economically extracted and includes an allowance for dilution and ore loss. The result appropriately reflects the Competent Person's view of the deposit. Approximately 100,000 t at 1.8 g/t at Riverina was downgraded from Proved to Probable due to current uncertainty surrounding metallurgical recovery. Test work results are pending and this material is expected to be upgraded for the DFS
Audits or reviews	 The results of any audits or reviews of Ore Reserve estimates. 	The Ore Reserve estimate, along with the mine design and life of mine plan, has been peer-reviewed internally by Ora Banda Mining Pty Ltd.

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Discussion of relative accuracy/ confidence

- Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve 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 reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.
- 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.
- Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.
- It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.

- The design, schedule and financial model on which the Ore Reserve is based was completed to a Feasibility level of accuracy, and a corresponding level of confidence. The mining costs for Waihi and Callion open pit were based on factored estimates using composited costs from other mining areas within the study. Further investigative and analytical work is required on rehandling and disposal of the tailings at Waihi. Both Waihi and Callion are considered to be at a pre-feasibility level of study. Waihi and Callion are schedule to be mined after the estimated project payback period.
- The Ore Reserve is based on a global estimate.
- There is a degree of uncertainty associated with geological estimates. The Reserve classifications reflect the levels of geological confidence in the estimates.
- There is a degree of uncertainty regarding estimates of impacts of natural phenomena including geotechnical assumptions, hydrological assumptions and the modifying mining factors, commensurate with the level of study. The Competent Person is satisfied that the analysis used to generate the modifying factors is appropriate, and that a suitable margin exists under current market conditions to allow for the Reserve estimate to remain economically viable despite reasonably foreseeable negative modifying factor results.
- There is a degree of uncertainty regarding estimates of commodity prices and exchange rates, however the Competent Person is satisfied that the assumptions used to determine the economic viability of the Ore Reserves are reasonable based on current and historical data.