

BOORARA STAGE 1 FEASIBILITY SUPPORTS DEVELOPMENT

HIGHLIGHTS

- Extensive 18,000m grade control program completed at Boorara with excellent high grade results across the Regal, Crown Jewel and Royal deposits, 10 km east of Kalgoorlie-Boulder in the heart of the Western Australian goldfields¹
- Trial mining and toll milling at Royal in 2016 delivered a mill reconciled grade of 1.73g/t Au, 70% above the global resource grade and a gold recovery of 91.5%²
- Mine optimisation and design, scheduling and economic evaluation now completed for the Stage 1 development of the Regal and Crown Jewel deposits
- Feasibility Study findings indicate a financially viable project highlighted by the following³:
 - Open pit mine design producing 159,000t at a fully diluted grade of 1.86g/t Au for 9,500 ounces over a six month mine life
 - Toll milling at 91.0% metallurgical recovery produces 8,700 ounces recovered
 - Low up-front capital costs of A\$0.44m
 - C1 Cost of A\$1,570/oz and All In Sustaining Cost of A\$1,680/oz
 - Project generates A\$5.8m in free cash flow at a current gold price of A\$2,350/oz
- Statutory approvals, mining and haulage contracts well advanced
- New toll milling agreement executed for ore processing at Golden Mile Milling's 1Mtpa Lakewood Mill, located 7km west of Boorara on existing roads
- Development decision expected in the current March Quarter 2020 for commencement of mining in the June Quarter and toll milling in the September Quarter⁴
- Reconciliation data from mining and milling will de-risk the larger scale development being assessed as part of the consolidated Feasibility Study

Cautionary Statement

The FS referred to in this announcement is based on Proven and Probable Ore Reserves derived from Measured and Indicated Mineral Resources. No inferred Resource material has been included in the estimation of Ore Reserves. The Company advises that Proven and Probable Ore Reserves provide 100% of the total tonnage and 100% of the total gold metal underpinning the forecast production target and financial projections. There is no additional life-of-mine plan material derived from the non-Ore Reserve material. There is no dependence of the outcomes of the FS and the guidance provided in this announcement on the non-Ore Reserve material. No Inferred Mineral Resource material is included in the life of mine plan (refer Appendix 1 and Forward Looking and Cautionary Statements on Pages 18-21).

Horizon has concluded it has reasonable basis for providing the forward looking statements included in this announcement (see pages 18-21). The detailed reasons for that conclusion are outlined throughout this announcement and Material Assumptions are disclosed in Appendix 1. This announcement has been prepared in accordance with the JORC Code (2012) and the ASX Listing Rules.

¹ As announced to the ASX on 14 and 21 January 2020. ² As announced to the ASX on 14 November 2016. ³ See Pages 3-10, competent persons statement on Pages 20 and JORC Tables on Page 21. ⁴ See Forward Looking and Cautionary statement on Pages 1 and 19.

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Overview

Horizon Minerals Limited (ASX: HRZ) (“Horizon” or the “Company”) is pleased to announce the results of the Boorara Stage 1 Feasibility Study (“FS” or “Study”). The proposed mining project comprises predominantly oxide and transitional material contained within the project’s maiden Ore Reserve. The 100% owned project is located 10km east of Kalgoorlie-Boulder, adjacent to the Super Pit in the heart of the Western Australian goldfields (Figure 1).

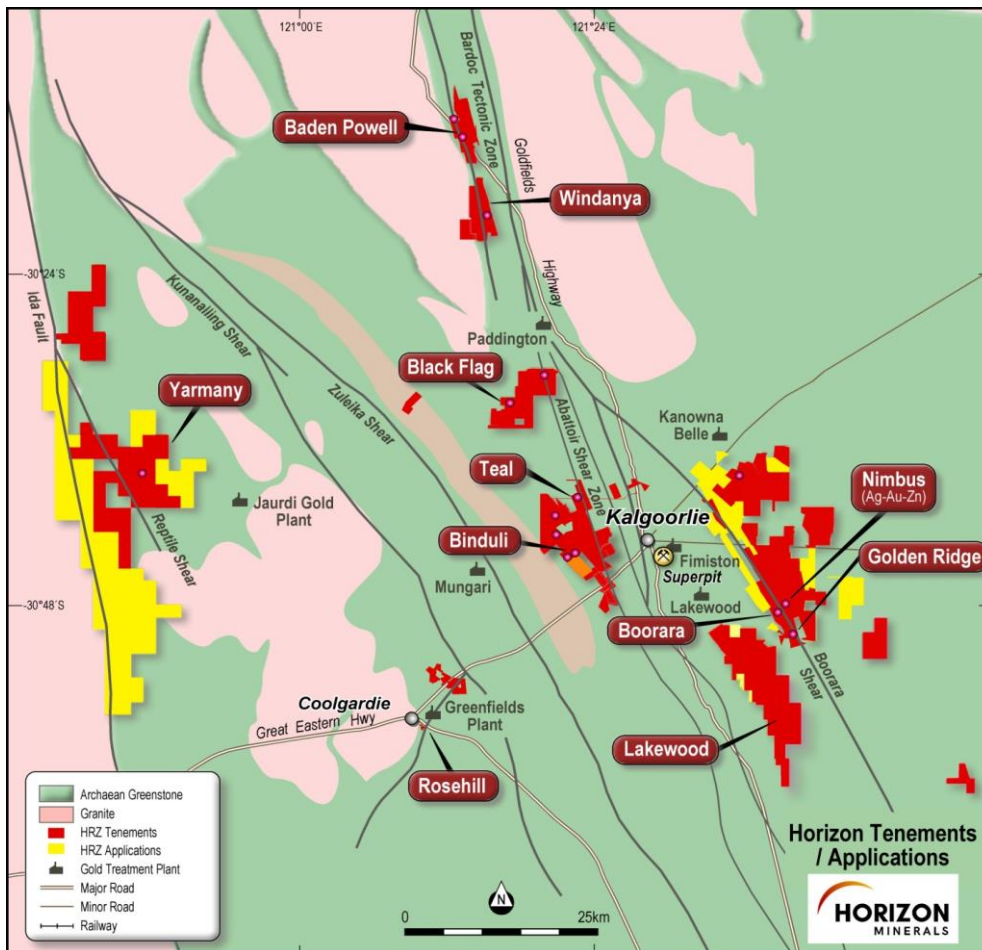


Figure 1: Boorara project area location and surrounding infrastructure

Commenting on the Boorara Stage 1 Study outcomes, Horizon Managing Director Mr Jon Price said:

“The Boorara Stage 1 Feasibility Study has delivered robust economic results with strong projected cash margins and significantly reduced geological risk with grade control drilling completed ahead of a decision to mine. As with the successful Teal gold mine, the Company has taken a conservative approach to both resource estimation and mine development parameters, adopting conservative cut-off grades, dilution and ore recovery to reduce risk and underpin strong future cash generation.”

“The key drivers for developing Stage 1 of Boorara are to leverage off the current high gold prices to generate cash and to de-risk the larger scale development by confirming the tonnage and grade uplift demonstrated by the infill drilling and previous mining and milling reconciliations.”

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Feasibility Study Parameters

The Study is based on the following key parameters:

- Gold price of A\$2,000/oz
- Open pit mining operations and road haulage conducted by contractors
- Ore processing through Golden Mile Milling's 1Mtpa conventional carbon in leach Lakewood plant in close proximity
- Project implementation and oversight by Horizon's own team in conjunction with contractors

Study Team

The key consultants and companies engaged during the Study and their areas of responsibility were:

- Geology and Resource Estimates BM Geological Services Pty Ltd
- Geotechnical Green Geotechnical Pty Ltd
- Mining and Ore Reserve Minecomp Pty Ltd
- Metallurgical Test work ALS Metallurgy and Bureau Veritas Minerals
- Processing facility In house review of third party processing plants
- Hydrology and hydrogeology Rockwater Pty Ltd
- Environmental Strategen-JBS&G Environmental Consultants

Key Outcomes of the Feasibility Study

The key Study outcomes for the project are included in Table 1 below: The estimated Ore Reserve, which constitutes 100% of the production target, has been prepared by competent persons in accordance with JORC Code 2012.¹

Table 1: Summary of FS key outcomes ²

Measure	FS outcome (A\$2,000/oz)	FS outcome (A\$2,350/oz)
Total pit volume (MBCM)	0.520	
Stripping ratio (waste: ore)	5.5	
Mined ore (kt)	159	
Gold grade (g/t)	1.86	
Milling recovery average (%)	91.0	
Recovered gold (ounces)	8,666	
Capital costs (A\$M)	0.44	0.44
C1 costs (A\$/oz)	1,574	1,574
All in Sustaining Costs (AISC) (A\$/oz)	1,684	1,684
Free cash flow over 8 month mine life (A\$M)	2.8	5.8

¹ See Competent Persons Statement on page 20 and JORC Tables on Page 21. ² See Forward Looking and Cautionary Statements on Page 19

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The FS reflects the mining of three starter pits, one within the Crown Jewel deposit, and an east and west pit within the Regal deposits that currently make up the Boorara gold project. The removal of a very limited amount of waste over burden is required to reach the ore zone and grade control drilling has been completed for all pits enabling ore production within the first week of mining. Mining will precede processing by two months to build ore stockpiles with mining taking six months and the overall project undertaken in eight months. The FS assumes low powder factor “paddock” blasting will be conducted to ensure acceptable dig rates without unnecessary ore movement impacting ore loss and dilution. Final pit depths average 33m.

Mineral Resource Estimate of Grade Control Model

The JORC Code 2012 Mineral Resource Estimate (MRE) for the Grade Control drilled Boorara Stage 1 areas followed completion of 18,000m of targeted grade control drilling across all three deposits.

Grade control drilling has been undertaken in areas within the three deposits (Regal, Crown Jewel and Royal) targeting areas of likely starter pits as part of the Stage 1 mining programme.

The grade control program also tested the potential for an uplift in gold grade and enabled a new geological block model to be compiled for mine optimisation, design and economic analysis. In addition, the data will be used as part of the consolidated Feasibility Study underway for the larger scale development to underpin a standalone processing facility at Boorara.

Grade control drilling density allows for the complexity of the Boorara gold mineralisation to be resolved and has resulted in a tonnage and grade increase in the Grade Control MRE for Stage 1 compared to the 2018 Published MRE as shown below in Table 2, and Figures 2 and 3.

Table 2: Comparison of Mineral Resource Estimates

Boorara Stage 1 Mineral Resource within Pit Designs at a 1.00 g/t Cut off						
Classification	2018 Published MRE ¹			2020 Grade Control MRE		
	kt	Au (g/t)	Au Oz	kt	Au (g/t)	Au Oz
Measured	79.1	1.84	4,673	0	0	0
Indicated	0	0	0	142.1	2.19	10,025
Total	79.1	1.84	4,673	142.1	2.19	10,025

The Grade Control MRE has been estimated to a depth of 50m by independent consultant Andrew Bewsher, Principal Geologist of BM Geological Services Pty Ltd. The Resource estimate is constrained within a nominal +0.5g/t Au mineralised wireframe with a maximum of 2m internal dilution to determine the portion of the total mineralised inventory within the geological model that has a reasonable prospect of eventual economic extraction. The optimisation utilised mining, geotechnical and processing parameters derived from contract budget quotations, an independent geotechnical assessment, metallurgical testwork and prior trial milling and processing parameters from third party processing budget proposals.

¹ Global MRE at a 0.5 g/t cut-off is shown in the Summary of Mineral Resources on page 18 based on MacPhersons’ ASX announcements “Quarterly Activities Report” dated 25 October 2018, “BOORARA GOLD PROJECT TOTAL GOLD RESOURCE up 118% to 507,000 OUNCES” dated 6th March 2018.

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This Grade Control MRE is within the published 2018 MRE, with a grade of 0.96g/t, whereas Table 2 shows the Resources within the pit designs generated in preparation of Ore Reserves, to show a true comparison of the effect of the tight spaced grade control drilling against the published 2018MRE based on broader spaced drilling.

A plan view of the Boorara Stage 1 deposit block model and pit design are included as Figures 2 and 3.

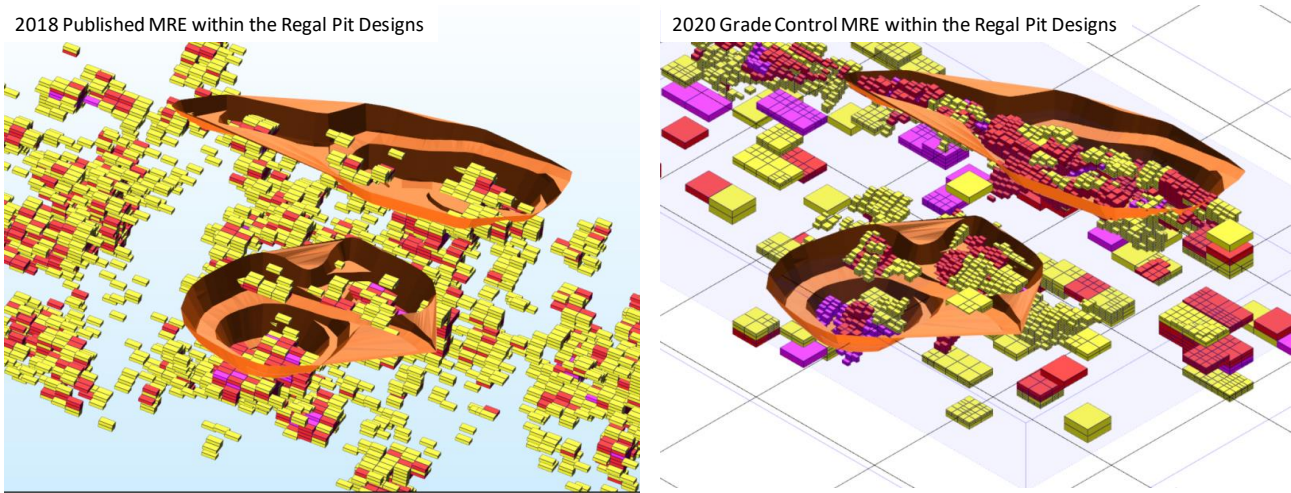


Figure 2: Schematic view of Boorara Stage 1 Regal deposit block models and pit design

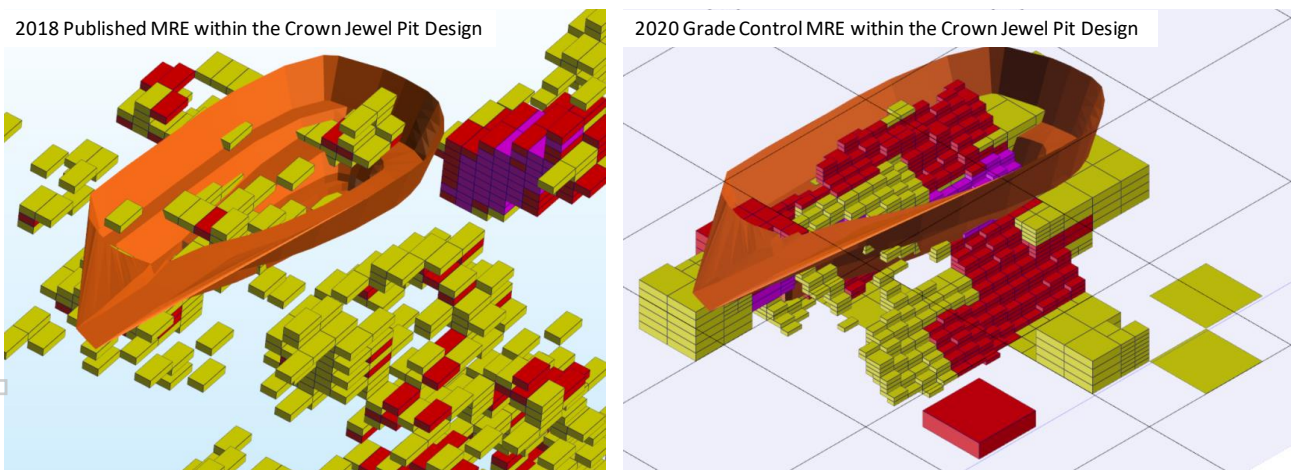


Figure 3: Schematic view of Boorara Stage 1 Crown Jewel deposit block models and pit design

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Mining

A mining contractor will conduct the mining activities with technical and managerial oversight provided by Horizon. Mining will be open cut using conventional truck and shovel operations and will initially be free dig near surface. Approximately 6m of waste overburden will be removed over followed by ore mark up from the recently completed grade control model (Figures 2 and 3).

Ore mining will then commence on a reduced bench height and smaller bucket size to minimise dilution and maximise ore recovery. Total volume moved is approximately 0.52M BCM.

Ore Reserve

Horizon engaged Minecomp Pty Ltd to conduct the Ore Reserve Study which was completed with the following material assumptions:

- Pit optimisation using slope parameters based on detailed geotechnical assessment by Green Geotechnical with an allowance for a ramp
- Mining and haulage costs based on quotations provided by a local based mining contractor currently undertaking work of this nature
- Detailed metallurgical test work from samples collected from drilling representing all ore domains within the project. Recoveries of 91% were applied
- Processing costs based on the price received on commercial terms through a conventional third party carbon in leach plant in close proximity to the operation
- Mining recovery and mining dilution based on deposit width and geometry. A mining recovery of 95% and mining dilution of 18% was applied. All Inferred Resources were excluded from the estimation of Ore Reserves
- An Australian dollar gold price of \$2,000 per ounce was applied. WA state royalties were subtracted from the gold price as part of the optimisation
- Bulk densities were derived from test work
- No discount factors have been used due to the less than one year mine life

The Ore Reserve for the project is reported according to the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, JORC Code 2012. The Grade Control MRE was converted to Ore Reserve in consideration of the level of confidence in the Grade Control MRE and reflecting modifying factors.

Table 3: Summary of Ore Reserves (see Appendix 1)

Boorara Stage 1 Ore Reserves			
Class	kt	Au (g/t)	Au Oz
Proven	0	0.00	0
Probable	159	1.9	9,500
Total	159	1.9	9,500



Figure 4: Boorara Stage 1 site layout

Ore processing and production

Ore mined will be trucked to the Lakewood processing facility where ore will be processed on a campaign basis under the supervision and control of a Horizon representative.

Ore will be mined in the range of 15-35kt per month over a six month period. The ore will be stockpiled onsite with processing commencing two months after the mining at approximately 25kt per month.

Metallurgical results indicate ore treatment through a conventional crushing, grinding and gravity circuit followed by standard carbon in leach gold extraction is suitable and appropriate for the ore type. Testwork and the treatment of ore from the trial pit in 2016 indicate that metallurgical recoveries of 91% are suitable for the study.

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Tonnage Movements and Grade by Month

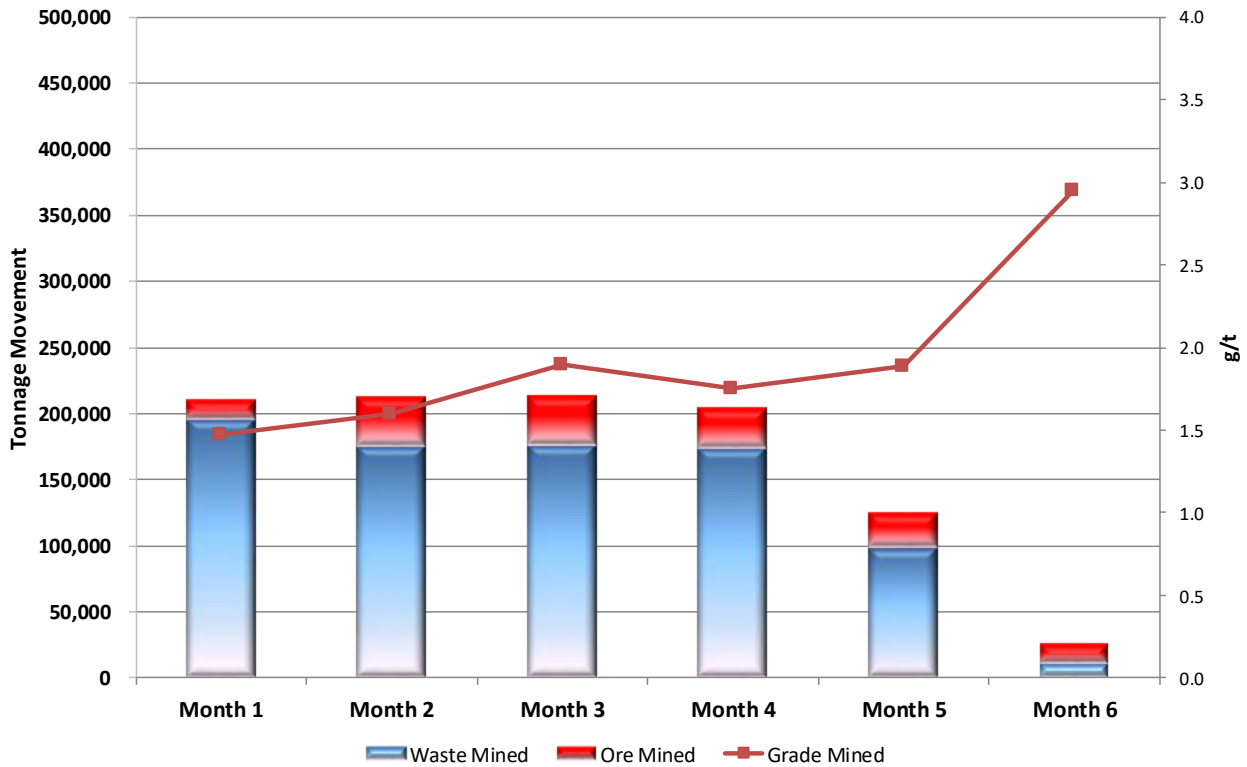


Figure 5: Boorara Stage 1 mining schedule, waste and ore with grade profile

Infrastructure, Transport and Services

The Boorara gold project is located approximately 10km to the east of the city of Kalgoorlie-Boulder. Access to site is via an unsealed road from the Bulong Road. Road trains shall haul via an existing unsealed road network, some of which requires minor upgrading, owned by Horizon and access via third parties and public roads to the processing facility.

No mine dewatering is necessary as the water table is 70m below surface, well below the lowest pit elevation. Water for dust suppression shall be sourced from the existing Chappell bore in close proximity to the operations and supplemented from water drawn from the Golden Ridge open pit to a newly constructed storage dam.

Site establishment and minor road upgrades shall be undertaken by the mining contractor, with a small temporary office, hard-stand and workshop facility constructed. Due to the close proximity of Kalgoorlie-Boulder, all external providers and staff shall come from the nearby city.

Capital Expenditure

Capital expenditure totals A\$0.44m comprising contractor mobilisation, demobilisation and site establishment, and also includes water storage dam construction, associated pumps and pipework, and also an upgrade to part of the existing road network suitable for road train use.

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Operating Expenditure

Allowances have been made for mining load and haul, drill and blast, dayworks, clearing, grubbing and topsoil placement, site rehabilitation and associated site overheads for staff and management. Ore haulage, processing costs and the associated state and private royalties have also been incorporated into the financial analysis.

Environmental and Permitting

Statutory approvals are in place for mine development include:

- Granted Mining Leases – M26/318, M26/490, M26/277, M26/29 and M26/534
- Approved Clearing permits – Clearing permits CPS 6630/1, CPS 6412/2, CPS 6182/2 and CPS 5829/2
- Licences to take water (5C) – GWL155204(3), GWL170197 and GWL178231

The Boorara gold mining project has an approved Mining Proposal (Reg ID 55304) in place, however an addendum shall be required for the Stage 1 mining operations due to changes associated with the scale of the project and processing methodology, along with other minor infrastructure requirements. An updated surface hydrology study has been completed by Rockwater Pty Ltd in line with the changes in infrastructure. The Mining Proposal addendum is being compiled by an external consultant and is well advanced.

Flora and Fauna investigations have shown no threatened or priority flora or fauna species within 10km of the project area. A targeted Mallee fowl (*Leipoa ocellata*) survey was undertaken in December 2013 to satisfy a condition on Clearing Permit 5829/1, with no Mallee fowl or critical Mallee fowl habitats occurring within the Study Area. An aboriginal heritage survey conducted in 2016 with no ethnographic sites observed in the study area.

Drafting of an updated Project Management Plan is also advanced, as are third party agreements for ore haulage road access.

Economic Evaluation

The economic evaluation of the project, summarised in Table 1 above, was conducted by Horizon management based on actual operating experience in the region and budget quotations received as part of the Feasibility Study. As the project life is eight months, the evaluation was conducted on a cash basis with the following key assumptions:

- Australian gold price of \$2,000 per ounce
- Budget quotations from mining, haulage and third party milling contractors
- State royalty of 2.5% of revenue

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Funding

Horizon has \$3.65 million cash at bank and investments totalling \$4.4 million in ASX listed companies. A further \$1.625m in cash and \$1.625m in shares is anticipated to be generated within 14 months in relation to the divestment of the Menzies Gold Project to Kingwest Resources in 2019.

The Company has completed successful capital raisings when needed and retains very supportive shareholders. The positive technical and economic fundamentals demonstrated to date at the Boorara gold project provide a sound basis to assess financing options including internal funding, traditional debt/equity and sale or partial sale of Company assets.

The Board is confident the Company will be able to finance the Boorara Stage 1 gold project.

Next Steps ¹

The immediate next steps are the finalisation of the Mining Proposal addendum and Project Management Plan for submission to DMIRS. In parallel, mining and haulage contracts shall be finalised in conjunction with project financing options for Board approval early in the June Quarter 2020. On completion and Board approval, mine development is anticipated during the June Quarter and subject to mobilisation of the mining fleet with the successful mining contractor.

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¹ See Forward Looking and Cautionary Statement on Page 19

Listing Rule 5.8.1 Disclosures

Geology and Geological Interpretation

The Boorara Gold Deposit is a typical quartz dolerite hosted sheeted veinlet system controlled by bounding shear zones or late stage cross faults.

Mineralisation occurs as:

1. Northwest dipping sheeted and stockwork quartz-carbonate veins within quartz dolerite host rocks.
2. Steeply dipping zones along sheared geological contacts trending to the north-northwest

Gold mineralisation has associated pyrite and arsenopyrite with alteration halos of iron carbonate, sericite and bleaching.

Depth of weathering can vary from less than 10 m around the Boorara Hill area to plus 50 m in the Southern Stockworks area.

Sampling and Sub-sampling

The Boorara Deposit has been drill tested over 40 years by Rotary Air Blast (RAB), Aircore (AC), Reverse Circulation (RC) and Diamond Core methods. For resource estimation, only samples from the latter two methods have been used.

RC samples are collected from the drill rig cyclone each metre and then sub sampled either by riffle splitter historically or more recently by cone splitter mounted beneath the drill rig cyclone. Both methods would produce a 3-4 kg sample for gold analysis.

Diamond core is either NQ or HQ sized and collected in core trays. Samples are collected by half cutting the core at various lengths based on geological parameters (to as small as 20 cm) or at one metre intervals where there is consistent geology over wide intervals.

Sample Analysis Method

All samples are analysed off-site by commercial laboratories based in Kalgoorlie or Perth, Western Australia.

All samples were analysed by a Fire Assay technique with sample preparation including crushing and pulverising with either a 30 g or 50 g sub-sample collected for firing and analysis. Other methods have been used and compared but to honour sample support, the more consistent and widely used Fire Assay method was selected for estimation.

External agencies have completed audits on the historical (pre-HRZ) assay datasets and quality control measures and no major issues were reported with sample or assay quality. HRZ have routinely used Certified Reference Materials (standards) and blanks (made up from known un-mineralised materials) inserted into sample batches at regular intervals to monitor laboratory performance.

Drilling Techniques

In the MRE area RC drilling with a 4^{1/4} or 4^{3/4} inch face sampling hammer was used for all the holes. Samples were dry. Good sample recoveries were observed and noted.

Estimation Methodology

Horizon provided the updated mineralisation interpretation, which was then slightly modified by BM Geological Services Pty Ltd (BMGS) to conform from section to section and snap onto drill holes. The wireframes were reviewed by Horizon before being finalised. The mineralisation consists of stacked parallel lodes dipping approximately 30° to the NW. 62 lodes were interpreted in the Northern area of the Regal deposit and 9 lodes interpreted in the southern area including the Crown Jewel and Royal deposits, and shown below in Figure 6.

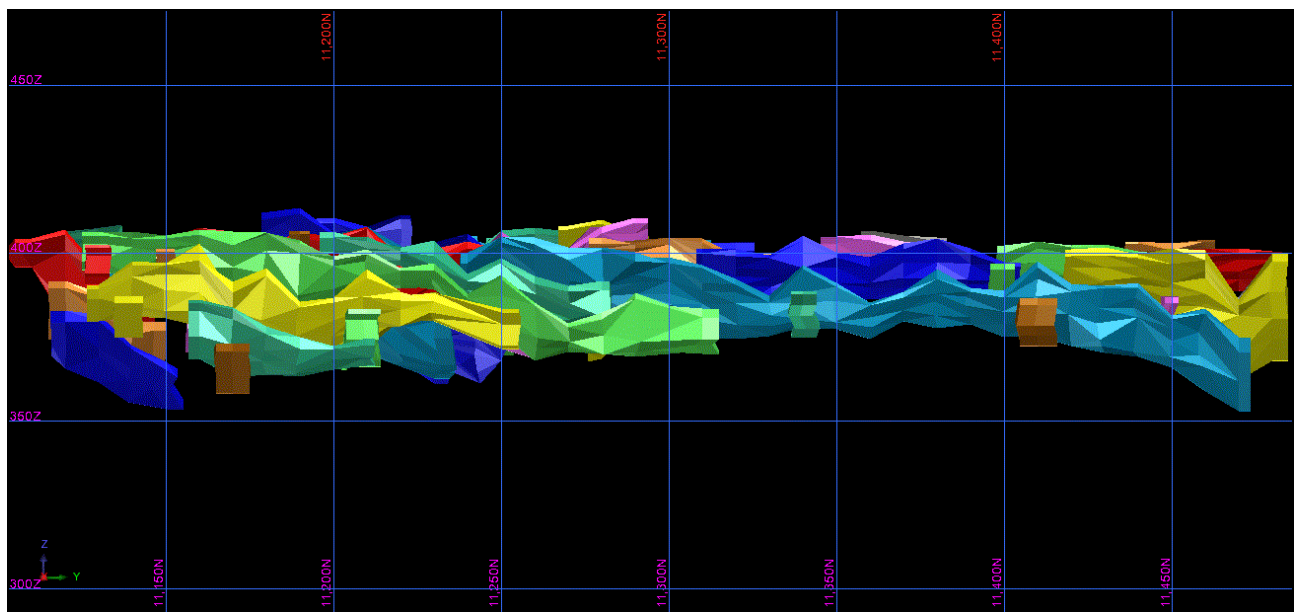


Figure 6: Mineralisation interpretations of lodes

An evaluation of the statistical background was used for identifying the lower cut-off in the interpretation. Although a statistical background identified a 5ppm Au value, there was flexibility in altering the lower cut-off based on geological interpretation to maintain lode continuity. Criteria used in the interpretations were:

- Interpretations were based on data supplied by Horizon.
- A nominal 0.5 g/t gold lower cut-off grade with flexibility for geological continuity.
- Sections extended 10m beyond the last interpreted section.
- Maintain geological and regolith continuity to conform with the lode style: laterite, supergene, hypogene etc.

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Block Model

Two block Models were created by Surpac Software v6.6.2, one for the Northern area including the Regal deposit, and a second model for the Southern area including the Crown Jewel and Royal deposits. Details and attributes tabled below.

North (Regal) Block Model

Dimensions	North	East	RL
Minimum Coordinates	11040	9960	350
Maximum Coordinates	11500	10260	440
User Block Size	20	20	5
Min. Block Size	5	2.5	1.25
Rotation	0	0	0

Attribute Name	Type	Decimals	Background	Description
aadts	Float	3	-99	
adtns	Float	3	-99	
au_ok_uncut	Float	2	-999	Au grade OK estimated for the block - uncut
bv	Float	3	-99	
category	Character	-	inferred	Resource category defined as inferred, indicated or measured
cbs	Float	3	-99	
est_pass	Integer	-	4	estimation pass number
ke	Float	3	-99	
Float	3	-99		
lm	Float	3	-99	
mine	Character	-	insitu	Mining code defined as insitu, mined or backfill
nnw	Integer	-	-99	
ns	Integer	-	-99	
orecode	Character	-	waste	Ore code defined as lode 1 to lode 60 or waste
sg	Float	2	1.799999952	2842 SG value: background is 1.8
topo	Character	-	insitu	Topography: air or insitu
wting	Character	-	fresh	Weathering state: oxide, transitional or fresh
		Block	Model Summary	regal_gc_ok_2412020.mdl

South (Royal and Crown Jewel) Block Model

Dimensions	North	East	RL
Minimum Coordinates	9780	10040	350
Maximum Coordinates	10660	10200	440
User Block Size	20	20	5
Min. Block Size	5	2.5	1.25
Rotation	0	0	0

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Attribute Name	Type	Decimals	Background	Description
aadts	Float	3	-99	
adtns	Float	3	-99	
au_ok_uncut	Float	2	-999	Au grade OK estimated for the block - uncut
bv	Float	3	-99	
category	Character	-	inferred	Resource category defined as inferred, indicated or measured
cbs	Float	3	-99	
est_pass	Integer	-	4	estimation pass number
ke	Float	3	-99	
kv	Float	3	-99	
lm	Float	3	-99	
mine	Character	-	insitu	Mining code defined as insitu, mined or backfill
nnw	Integer	-	-99	
ns	Integer	-	-99	
orecode	Character	-	waste	Ore code defined as lode 1 to lode 60 or waste
sg	Float	2	1.79999952	SG value: background is 1.8
topo	Character	-	insitu	Topography: air or insitu
wting	Character	-	fresh	Weathering state: oxide, transitional or fresh
		Block	Model Summary	sth_gc_ok_2912020.mdl

Block Optimisation

Surpac macros were created to aid in testing the sample data for optimised block size, maximum number of samples and maximum search. The test involves comparing the Kriging Efficiency against the Conditional Bias Slope at the point where they are close to 1 and the results become static or flat.

Interpolation

Interpolations were conducted for each lode independently using macros and applied using ordinary Kriging (OK) uncut sample data. Separate macros and data orientations were conducted for the north and south lodes. The search passes were adjusted in subsequent passes by either increasing search criteria or relaxing restrictions on the number of samples required for estimation.

Variography

Variography was conducted on the lodes due to the strike continuity and dataset sizes using data extracted on 1m composites within the lodes. The results identified the anisotropic search ellipse shown below.

Search Orientation

Bearing	355°
Plunge	-30°
Dip	5.0° East Lodes 15° West Lodes

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Anistrophy Parameters

Major/semi-major	2
Major/minor	3
Nugget	0.49
Sill	1.0
Range	42

Bulk Density

Bulk density data was based on SG determinations from Boorara diamond core:

- Oxide clay: 1.8g/cm³ used for the material above the BOCO weathering profile.
- Oxide:2.0g/cm³ used for material between the BOCO and the Transition weathering profiles
- Transition: 2.4g/cm³ used for the material between the Transition and Fresh Rock weathering profiles.
- Fresh Rock: 2.7g/cm³ used for the fresh rock material below the Fresh Rock weathering profile.

The density data has previously been validated, and the data is considered acceptable.

MRE Classification

Strings were created to define the areas of structural continuity, data density and is supported by a sound understanding of the geology of the deposit, drill hole spacing, historic drill data and the dataset supporting the density used in the deposit. MRE classification shown at a lower cut off of 0.5g/t gold are shown in Figures 7 and 8 below.

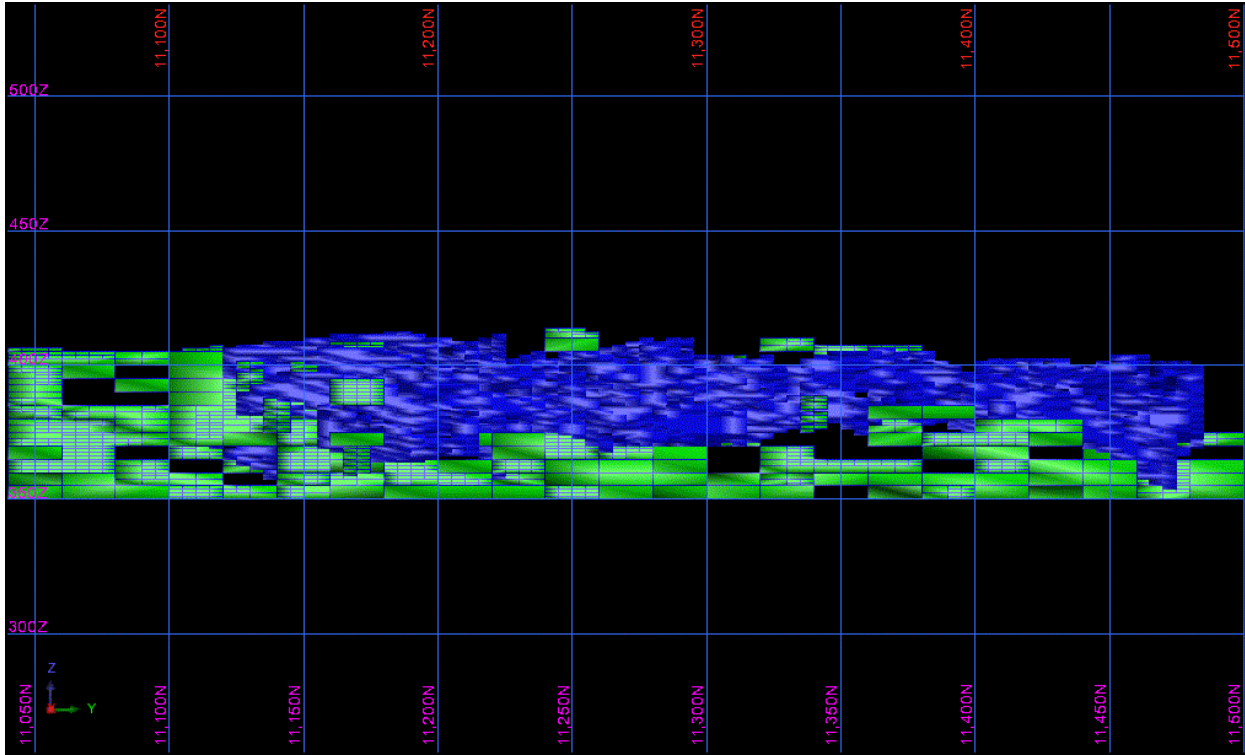


Figure 7: Northern MRE model classification (Blue – Indicated; Green – Inferred)

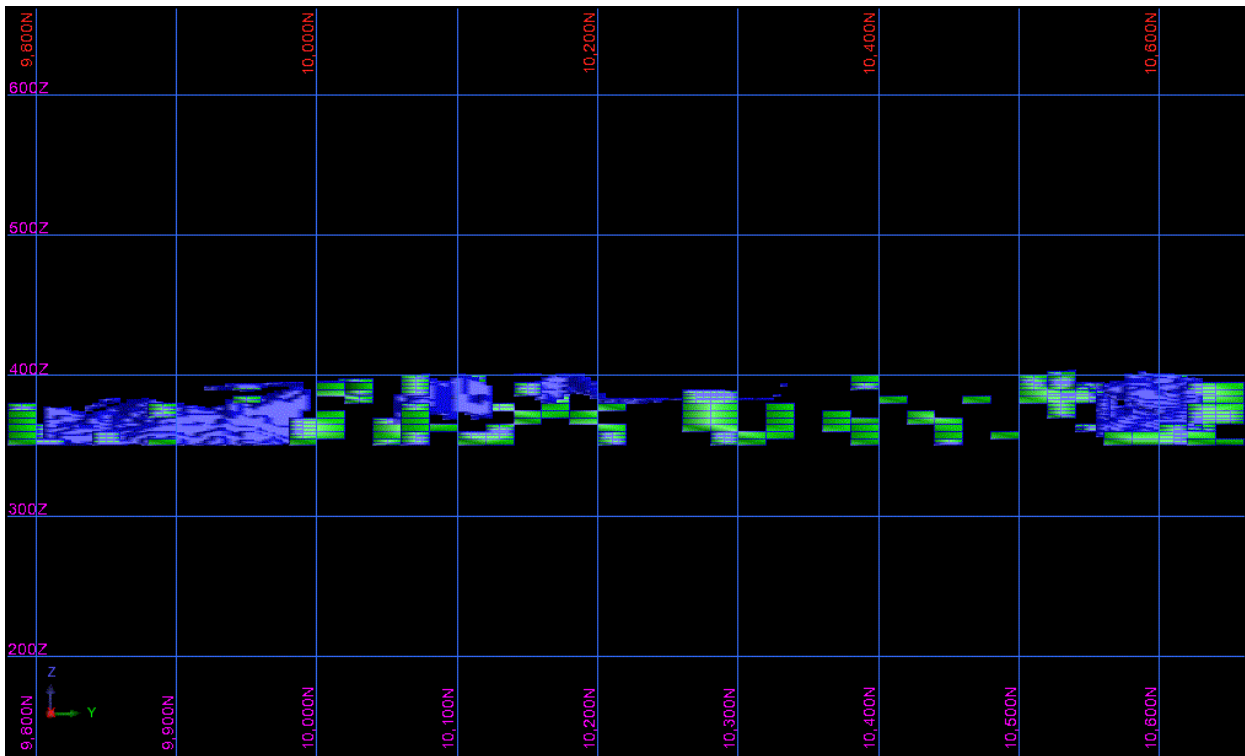


Figure 8: Southern MRE model classification (Blue – Indicated; Green – Inferred)

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Cut-off Grade

No upper cut-off grade was applied as the high grade level of influence was minimal.

Mining and Metallurgical Methods and Parameters and other modifying factors considered

Horizon has undertaken optimisation studies using Whittle Software for open cut mining. Costs utilised were from existing agreements or quotations from contractors and Horizons internal costings. Optimisations were based on a A\$2,000/oz gold price less royalties. Mine designs were undertaken on the optimised shells, and only measured and indicated classified mineral resources were used to generate Ore Reserves., with no Inferred Resource included for Ore Reserves. Modifying factors of 95% ore recovery and 18% dilution was used against the Measured and Indicated Mineral Resource within the pit design to estimate Ore Reserves. The pits were scheduled and costs and determined to be economic.

Metallurgical work has been undertaken on composite oxide, transitional and fresh samples from the RC drilling programs representative of the orebody. In addition, previous trial mining and toll milling in 2016 has provided actual operating data to support the extensive metallurgical test work completed.

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Macphersons Resources Limited (a 100% subsidiary of Horizon) – Summary of Mineral Resources

Boorara Gold Resource (at a 0.5 g/t Au cut-off grade)-
 (Published 2018 MRE)

Category	Tonnes	Grade	Ounces
	Mt	Au (g/t)	(k'000)
Measured Resource	6.11	0.92	181
Indicated Resource	7.26	0.97	227
Inferred Resource	3.08	1.00	99
Total Resource	16.45	0.96	507

Nimbus All Lodes (bottom cuts 12 g/t Ag, 0.5% Zn, 0.3 g/t Au)

Category	Tonnes	Grade	Grade	Grade	Ounces	Ounces	Tonnes
	Mt	Ag (g/t)	Au (g/t)	Zn (%)	Ag (Moz's)	Au (k'000)	(k'000)
Measured Resource	3.62	102	0.09	1.2	11.9	10	45
Indicated Resource	3.18	48	0.21	1.0	4.9	21	30
Inferred Resource	5.28	20	0.27	0.5	3.4	46	29
Total Resource	12.08	52	0.20	0.9	20.2	77	104

Nimbus high grade silver zinc resource (500 g/t Ag bottom cut and 2800 g/t Ag top cut)

Category	Tonnes	Grade	Grade	Ounces	Tonnes
	Mt	Ag (g/t)	Zn (%)	Ag (Moz's)	(k'000)
Measured Resource	0	0	0	0	0
Indicated Resource	0.17	762	12.8	4.2	22
Inferred Resource	0.09	797	13.0	2.2	11
Total Resource	0.26	774	12.8	6.4	33

Confirmation

The information in this report that relates to MacPhersons' Mineral Resources estimates on the Boorara Gold Project and Nimbus Silver Zinc Project is extracted from and was originally reported in Intermin's and MacPhersons' ASX Announcement "Intermin and MacPhersons Agree to Merge – Creation of a New Gold Company Horizon Minerals Ltd" dated 11 December 2018 and in MacPhersons' ASX announcements "Quarterly Activities Report" dated 25 October 2018, "BOORARA GOLD PROJECT TOTAL GOLD RESOURCE up 118% to 507,000 OUNCES" dated 6th March 2018, "New High Grade Nimbus Silver Core Averaging 968 g/t Ag" dated 10th May 2016, "Boorara Trial Open Pit Produced 1550 Ounces" dated 14 November 2016 and "Nimbus Increases Resources" dated 30th April 2015, each of which is available at www.asx.com.au. 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 and that all material assumptions and technical parameters underpinning the estimates in those announcements continue to apply and have not materially changed. The Company confirms that the form and context of the Competent Person's findings in relation to those Mineral Resources estimates have not been materially modified from the original market announcements.

Forward Looking and Cautionary Statements

Some statements in this report regarding estimates or future events are forward looking statements. They include indications of, and guidance on, future earnings, cash flow, costs and financial performance. Forward looking statements include, but are not limited to, statements preceded by words such as “planned”, “expected”, “projected”, “estimated”, “may”, “scheduled”, “intends”, “anticipates”, “believes”, “potential”, “could”, “nominal”, “conceptual” and similar expressions. Forward looking statements, opinions and estimates included in this announcement are based on assumptions and contingencies which are subject to change without notice, as are statements about market and industry trends, which are based on interpretations of current market conditions. Forward looking statements are provided as a general guide only and should not be relied on as a guarantee of future performance. Forward looking statements may be affected by a range of variables that could cause actual results to differ from estimated results, and may cause the Company’s actual performance and financial results in future periods to materially differ from any projections of future performance or results expressed or implied by such forward looking statements. These risks and uncertainties include but are not limited to liabilities inherent in mine development and production, geological, mining and processing technical problems, the inability to obtain any additional mine licenses, permits and other regulatory approvals required in connection with mining and third party processing operations, competition for among other things, capital, acquisition of reserves, undeveloped lands and skilled personnel, incorrect assessments of the value of acquisitions, changes in commodity prices and exchange rate, currency and interest fluctuations, various events which could disrupt operations and/or the transportation of mineral products, including labour stoppages and severe weather conditions, the demand for and availability of transportation services, the ability to secure adequate financing and management’s ability to anticipate and manage the foregoing factors and risks. There can be no assurance that forward looking statements will prove to be correct.

Statements regarding plans with respect to the Company’s mineral properties may contain forward looking statements in relation to future matters that can only be made where the Company has a reasonable basis for making those statements.

This announcement has been prepared in compliance with the JORC Code (2012) and the current ASX Listing Rules.

The Company believes that it has a reasonable basis for making the forward looking statements in the announcement, including with respect to any production targets and financial estimates, based on the information contained in this and previous ASX announcements.

Competent Person's Statement

The information in this report that relates to exploration results is based on information compiled by Andrew Pumphrey who is a Member of the Australian Institute of Geoscientists and is a Member of the Australasian Institute of Mining and Metallurgy. Andrew Pumphrey is a full time employee of Macphersons Resources Ltd and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Pumphrey has given his consent to the inclusion in this report of the matters based on the information in the form and context in which it appears.

The information in this report that relates to the grade control mineral resource is based on information compiled by Andrew Bewsher who is a Member of the Australian Institute of Geoscientists. Andrew Bewsher is an employee of BM Geological Services Pty Ltd and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Bewsher has given his consent to the inclusion in this report of the matters based on the information in the form and context in which it appears.

The Information in this Report that relates to Ore Reserves is based on information compiled by Mr Gary McCrae, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy. Mr McCrae is a full-time employee of Minecomp Pty Ltd. Mr McCrae has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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 McCrae consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

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Appendix 1 – Boorara Gold Project (Stage 1)

JORC Code (2012) Table 1, Section 1 - 4

Mr David O'Farrell, Exploration Manager and Andrew Pumphrey, GM – Boorara of Horizon compiled the information in Section 1 and Section 2 of the following JORC Table 1 and is the Competent Person for those sections. Mr Andrew Bewsher Principle Geologist BM Geological Services compiled the information in Section 3 of the following JORC Table 1 and is the Competent Person for this section. Mr Gary McCrae, Principle of Minecomp Pty Ltd compiled the information in Section 4 of the following JORC Table 1 and is the Competent Person for that section The following Table and Sections are provided to ensure compliance with the JORC Code (2012 edition) requirements for the reporting of Mineral Resources. For further detail, please refer to the announcements made to the ASX by Intermin Resources Ltd and MacPhersons Resources in 2016-2019 and Horizon Minerals Ltd (2019) relating to the Kalgoorlie gold project areas.

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<i>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.</i>	<ul style="list-style-type: none"> The reverse circulation (RC) samples are collected from the drill rig cyclone in a bucket in 1m intervals and are laid out in rows of 10 samples. A 2-4kg representative sample is split via the rig mounted cone splitter and placed on top of the green plastic for that metre interval.
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	<ul style="list-style-type: none"> All sampling is undertaken using Horizon Resources Ltd grade control sampling procedures and QAQC in line with industry best practice which includes duplicate cyclone split samples every 25 samples and insertion of certified standards followed by a blank sample every 30 samples. The RC drilling rig provides a sample at the end of each metre of drilling. A 2-4kg is collected from the drill rig mounted cone splitter which is representative of that metre.
	<i>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</i>	<ul style="list-style-type: none"> RC was used to obtain 1m samples from which approximately 1.5-2kg was pulverised to produce a 50 g charge for fire assay. RC chips were geologically logged over 1m intervals, sampled over 1m intervals. Samples assayed for Au only for this program. Assays were determined by 50g fire assay with AAS finish

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Criteria	JORC Code explanation	Commentary
	<i>(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.</i>	samples grading >5g/t were repeat assayed and if a sample exceeded 100 g/t or coarse gold is suspected then a screen fire assay (Au-SCR22AA) has been undertaken on those samples and those results reported instead of the fire assay result.
Drilling techniques	<i>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).</i>	<ul style="list-style-type: none"> • RC drilling with a 137 mm face sampling hammer bit.
Drill sample recovery	<p><i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></p> <p><i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></p> <p><i>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.</i></p>	<ul style="list-style-type: none"> • RC recovery and meterage was assessed by comparing drill chip volumes for individual meters. Estimates of sample recoveries were recorded. Routine checks for correct sample depths are undertaken every RC rod (6m). RC sample recoveries were visually checked for recovery, moisture and contamination. The cyclone was routinely cleaned ensuring no material build up. • Due to the generally good/standard drilling conditions around sample intervals (dry) the geologist believes the samples are representative, some bias would occur in the advent of poor sample recovery which was logged where rarely encountered. • No sample bias has been identified to date.
Logging	<i>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.</i>	<ul style="list-style-type: none"> • Each RC metre drilled underwent logging through the entire hole with record kept of colour, quartz percentage, lithology, degree of oxidation, and type and intensity of alteration, veining and sulphide content. • Logging was qualitative in nature.

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Criteria	JORC Code explanation	Commentary
	<p><i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></p> <p><i>The total length and percentage of the relevant intersections logged.</i></p>	<ul style="list-style-type: none"> All drill holes were geologically logged in full (100%).
<p>Sub-sampling techniques and sample preparation</p>	<p><i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></p> <p><i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></p> <p><i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></p> <p><i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></p> <p><i>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.</i></p> <p><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></p>	<ul style="list-style-type: none"> 1m RC samples taken. All RC sub-samples are collected via a cone splitter system mounted on the drill rig. All samples were analysed via a 50 gram fire assay. Following that analysis in cases where visible gold has been observed or a fire assay grade has exceeded 100 g/t or coarse gold is suspected then a screen fire assay (Au-SCR22AA) has been undertaken on those samples and those results reported instead of the fire assay result. Sample preparation and analysis were completed by ALS in Kalgoorlie. When received, samples are processed by code PREP-31 - logged in tracking system and bar code attached, fine crushing to better than 70% passing 2mm, split sample using riffle splitter, split of up to 1000g pulverised to >85% sample passing 75um. All sampling equipment and sample bags are kept clean at all times. The RC drill rig mounted cone splitter is set to ensure that the 1m split sample weighs on average between 2-4kg. The cone splitter is cleaned using an air nozzle after every drill rod – 6m. Horizon Resources sampling procedures and QAQC is used to maximise representivity of samples. Duplicate field samples are collected every 25 samples from the cyclone splitter. The sample sizes of 2-4 kg are considered appropriate for the style of mineralisation at Boorara.
<p>Quality of assay data and</p>	<p><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></p>	<ul style="list-style-type: none"> The nature, quality and appropriateness of the assaying and laboratory procedures are industry standard for Archaean mesothermal lode gold deposits. The fire assay technique will result in a total assay result. In cases where visible gold has been observed or a fire assay grade has exceeded 100 g/t or coarse gold is suspected then a screen fire assay (Au-SCR22AA) has been undertaken on those samples and reported instead of the fire assay result.

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Criteria	JORC Code explanation	Commentary
laboratory tests	<p><i>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.</i></p> <p><i>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i></p>	<ul style="list-style-type: none"> • No geophysical assay tools were used. • Certified Reference Materials (standards) are purchased from an independent supplier of such materials. Blanks are made up from samples previously collected from other drill programs at that have analysed as less than detection Au values. A standard sample followed by a blank sample are inserted every 30th sample. A duplicate sample is taken every 25 samples. Evaluation of the Horizon submitted standards and blanks analysis results indicates that assaying is accurate and without significant drift.
Verification of sampling and assaying	<p><i>The verification of significant intersections by either independent or alternative company personnel.</i></p> <p><i>The use of twinned holes.</i></p> <p><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></p> <p><i>Discuss any adjustment to assay data.</i></p>	<ul style="list-style-type: none"> • At least two different company personnel visually verified intersections in the collected drill chips. A representative sample of each metre is collected and stored for further verification if needed. • Work was supervised by senior ALS staff experienced in metals assaying. QC data reports confirming the sample quality are supplied. • Data collected in the form of spreadsheets, for drill hole collars, surveys, lithology and sampling. All geological and field data is entered into Microsoft Excel spreadsheets with lookup tables and fixed formatting (and protected from modification) thus only allowing data to be entered using the Horizon geological code system and sample protocol. Data is verified and validated by HRZ geologists and stored in a Microsoft Access Database. Data is emailed to a database administrator for validation and importation into a GEMS database. • No adjustments are made to the primary assay data imported into the database.
Location of data points	<p><i>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.</i></p> <p><i>Specification of the grid system used.</i></p> <p><i>Quality and adequacy of topographic control.</i></p>	<ul style="list-style-type: none"> • Initial hole collars surveyed by licenced surveyor DGPS (0.01m Dip was checked with clinometer on drill mast at set up on hole. RC holes are surveyed by down hole surveys at 20m intervals using “Reflex Gyro” +/- 0.10 by drill contractor. Some holes were open hole gyro surveyed by local contractor ABIMS. • Final hole locations were surveyed by licenced surveyor (Minecomp Pty Ltd) using RTK DGPS (0.01m). • The grid system used is Geodetic Datum of Australia 1994 (GDA 94) and local grid. • Using 2011 Fugro Spatial Solutions Pty Ltd detailed aerial photographic survey with Ortho rectification and mosaicking performed using Inpho Digital Photogrammetric Systems. Expected accuracy of detail within 0.8mm at ortho-image map scale. Topographic control is from and aerial

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Criteria	JORC Code explanation	Commentary
Data spacing and distribution	<p><i>Data spacing for reporting of Exploration Results.</i></p> <p><i>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.</i></p> <p><i>Whether sample compositing has been applied.</i></p>	<ul style="list-style-type: none"> • Drilling at Boorara is at 10m line x 4m hole and 10m line x 5m hole spacing's. • Holes are consistent with industry standard resource style drilling in accordance with the collar details/coordinates as previously reported. • No sample compositing has been applied in the field.
Orientation of data in relation to geological structure	<p><i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></p> <p><i>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.</i></p>	<ul style="list-style-type: none"> • Drilling at Boorara Regal deposit is a 060°/-60° perpendicular to geology contacts but also is preferred orientation for estimating grade of quartz veins and arrays. Drilling at Boorara Crown Jewel and Royal deposits uses vertical holes which is also a preferred orientation for estimating grade of quartz veins and arrays in these two areas. Previously vertical grade control drill hole assay results at Boorara Trial Pit reconciled very well to actual tonnes mined and milled. • The relationship between the drilling orientation and the orientation of mineralised structures is not considered to have introduced a sampling bias given the style of mineralisation and drill spacing/method.
Sample security	<p><i>The measures taken to ensure sample security.</i></p>	<ul style="list-style-type: none"> • Chain of custody is managed by Horizon Resources Ltd. Field samples are stored overnight onsite (if not delivered to laboratory) which is equipped with security cameras and caretaker in residence who is an employee of Horizon Minerals Ltd. • Field samples are delivered to the ALS assay laboratory in Kalgoorlie. Whilst in storage at the laboratory, they are kept in a secured yard which is equipped with security cameras. Tracking sheets have been set up online to track the progress of batches of samples through the laboratory.

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Criteria	JORC Code explanation	Commentary
Audits or reviews	<i>The results of any audits or reviews of sampling techniques and data.</i>	<ul style="list-style-type: none"> CSA Global completed a review in early 2015 of the MRP sampling protocols as part of their resource estimation work and was satisfied that the adequacy of sample preparation, sample security and analytical procedures are of industry standard.

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<p><i>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.</i></p> <p><i>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.</i></p>	<ul style="list-style-type: none"> The Boorara Project is located approximately 17km east-southeast of Kalgoorlie, 2km west of Nimbus and 6km north-northwest of Golden Ridge. The Boorara project is situated within mining leases M26/29, M26/277 and M26/318 accessed from the Kalgoorlie-Bulong Road via an unsealed haul road. The tenements are located within the Hampton Hill Pastoral Station. Normal Western Australian state royalties apply. A third party royalty of \$1/t is payable to a maximum of \$1 million on M26/277. A third party royalty based on production milestones is payable on M26/29, M26/318 & M26/161 as below; <ul style="list-style-type: none"> 25,000 ounces gold production – 375 ounce royalty payable 50,000 ounces gold production – 375 ounce royalty payable 75,000 ounces gold production – 375 ounce royalty payable 100,000 ounces gold production – 375 ounce royalty payable Situated within the Boorara Project area are the reserves associated with the Boorara townsite. Proposed open pit operations will not impact on the reserves. The location of waste dumps will be sited so as to avoid mineral resources, exploration targets and to work with other mining infrastructure associated with the Nimbus operations located within 2km of the proposed Boorara open pits. MRP purchased the Nimbus property on 8th September 2011 from Kalgoorlie Ore Treatment Company Pty Ltd (KOTC). The tenements are held by KOTC, a wholly owned subsidiary of MacPhersons Resources Ltd.

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Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> The tenements are in good standing and no known impediments exist.
<p>Exploration done by other parties</p>	<p><i>Acknowledgment and appraisal of exploration by other parties.</i></p>	<ul style="list-style-type: none"> Historic gold production at Boorara produced 30,673 oz's from the treatment of 54,731 tonnes of ore. This production was from underground mining at the Cataract shaft, East Lode shaft and the Crown Jewel shaft. Historic mine plans and sections show two orientations of mine stopes, one at 040°/25° NW and another at 315°/65°W. Dampier Mining Pty Ltd and Texas Gulf Australia Ltd in 1980 drilled 20 RC holes for 1,038m and 10 diamond holes for 1,695m. Western Reefs NL in 1985 undertook soil sampling on a 40m x 20m grid. They also completed 180 RAB holes for 9892m, 268 RC holes for 20,831m and 26 diamond holes for 2,609m. Geological mapping was undertaken by Western Reefs including costean mapping and sampling. The Cataract shaft was refurbished and geologically mapped and surveyed. The Crown Jewel shaft was geological mapped and surveyed also. Windsor Resources in 1988 drilled 174 RC holes for 11,274m. Newmont in 1990 drilled 338 RAB holes for 15,446m, 39 RC holes for 4,319m and 4 diamond holes for 718m. Geological mapping and soil sampling was also undertaken. Mt Monger Gold Project in 1993 drilled 116 RC holes for 6,222m. Fimiston Mining NL in 1995 drilled 110 RC holes for 7,257m and 1 diamond hole for 195m. The data relating to the Boorara gold deposits comprising the Southern Stockwork Zone, Northern Stockwork Zone, Cataract Area, East Lode and Digger Dam was reviewed. The database was updated to incorporate the drilling completed by Fimiston and cross sections and interpretations made. A global polygonal based resource estimate was made which estimated resources of 2.25 million tonnes @ 1.40g/t Au at a cut-off grade of 0.5g/t or 1.42 million tonnes @ 1.72 g/t Au at a cut off of 1.0 g/t to be estimated. Block modelling of this polygonal data was then completed which returned a total oxide resource of 1,293,000 tonnes @ 1.49 g/t, and a total fresh resource of 1,095,000 tonnes @ 1.86g/t. New Hampton Goldfields Ltd in 2001 undertook a resource estimate at Boorara which resulted in a JORC compliant undiluted mineral resource of 1,506,000t @ 1.85 g/t Au. Open pit design of the Southern Stockwork, Cataract and the Northern Stockwork resulted in a Probable Reserve of 179,000t @ 3.0 g/t Au. The New Hampton Goldfields Ltd – Jubilee Gold Operations report, “Mineral Resource Estimate Report, Boorara M26/29 M26/318 and M26/161, June 2001 G Job” outlines the methodology and an explanation of the resource calculation. Polymetals (WA) Pty Ltd in 2006 estimated a NON JORC complaint total resource summary of 1,904,800t @1.38g/t Au using a cutoff grade of 0.5 g/t Au. Polymetals (WA) Pty Ltd in 2009 completed 18 RC holes for 1770m. From this program 126

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Criteria	JORC Code explanation	Commentary
		<p>samples with >1.0g/t Au were screen fire assayed, with another 34 duplicates taking the total samples assayed via screen fire assay to 160.</p>
Geology	<p><i>Deposit type, geological setting and style of mineralisation.</i></p>	<ul style="list-style-type: none"> The Boorara Au deposit is an Archaean mesothermal Au deposit. The Boorara local geology consists of a sequence of ultramafic, mafic and felsic volcanic and volcanoclastic rocks, with interflow carbonaceous sediments found on the lithological boundaries. Dolerite intrusions are conformable within the sequence. The metamorphic grade of rocks at Boorara is lower greenschist facies. The alteration assemblage associated with better Au grades consists of quartz carbonate and sericite. Pyrite and arsenopyrite are associated with the better Au grades at Boorara. Mineralisation envelopes at Boorara consist of three dominant orientations: <ol style="list-style-type: none"> Regal - NW trending sub-vertical mineralisation which is typically sub parallel to lithology contacts, with quartz dolerite hosted NW striking and shallow to moderate NW dipping veins and arrays. Crown Jewel - NW trending, NE shallow dipping mineralisation, sub parallel to lithology contacts Regal - Quartz dolerite hosted NW striking with shallow to moderate NW dipping vein arrays as seen in the Boorara trial pit.
Drill hole Information	<p><i>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:</i></p> <ul style="list-style-type: none"> <i>easting and northing of the drill hole collar</i> <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i> <i>dip and azimuth of the hole</i> <i>down hole length and interception depth</i> <i>hole length.</i> <p><i>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.</i></p>	<ul style="list-style-type: none"> Please refer to Table 1 in the previous Horizon Minerals Ltd (HRZ) ASX releases for full details. Only significant results were reported given the nature of the grade control drilling program and the relevance of drill holes.

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Criteria	JORC Code explanation	Commentary
Data aggregation methods	<p><i>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.</i></p> <p><i>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.</i></p> <p><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></p>	<ul style="list-style-type: none"> Holes include up to 2m of internal dilution - host dolerite was intersected in the 2m diluted section with significant alteration. A bottom cut off grade of 1.0 g/t was used and no top cut grade was applied. The procedure applied to the aggregate intercepts quoted is length weighted average (sum product of interval x corresponding interval assay grade), divided by sum of interval lengths and rounded by one decimal place. No metal equivalent calculations were applied.
Relationship between mineralisation widths and intercept lengths	<p><i>These relationships are particularly important in the reporting of Exploration Results.</i></p> <p><i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></p> <p><i>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').</i></p>	<ul style="list-style-type: none"> Drill intercepts at Regal are 50% of the true width of sub vertical mineralisation and close to true width of NW striking NW dipping lodes. Drill intercepts at Crown Jewel and Royal are drilling down dip of the dolerite host and do not represent true widths. Vertical and 060°/-60° drill orientations estimate the drill hole grade reasonably accurately of the various quartz veins and sheeted vein array orientations 020°/48°NW, 060°/40°NW & 100°/43°N.
Diagrams	<p><i>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.</i></p>	<ul style="list-style-type: none"> Please refer to the body of the report.

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Criteria	JORC Code explanation	Commentary
Balanced reporting	<i>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.</i>	<ul style="list-style-type: none"> Summary results showing 1m assays >1.00 g/t Au are shown in Table 1 of previous Horizon Minerals Ltd (HRZ) ASX releases.
Other substantive exploration data	<i>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.</i>	<ul style="list-style-type: none"> See details from previous ASX releases from MacPhersons Resources Limited (ASX; MRP) and more recently Horizon Minerals Ltd (ASX: HRZ). These can be accessed via the internet.
Further work	<p><i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></p> <p><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></p>	<ul style="list-style-type: none"> New resource calculations are planned once sufficient data is compiled, with pit or underground economic assessments to follow if warranted. Commercially sensitive.

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Criteria	JORC Code explanation	Commentary
Database integrity	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> HRZ and pre-HRZ data has been checked and validated to an acceptable standard by HRZ staff. The database of historical results was validated by reconciling all available previous hardcopy drill logs, assay results and a review in 3D graphics comparing with the more recent HRZ drill holes. All geological and field data is entered into Microsoft Excel spread sheets with lookup tables and fixed formatting (and protected from modification) thus only allowing data to be entered using the MacPhersons geological code system and sample protocol. Data is verified and validated by MRP geologists and stored in a Microsoft Access Database. Data is emailed to a database administrator for validation and importation into a GEMS database. The database was viewed in 3D mining software and interval validated prior to commencing modelling. Database audits can be completed using similar software. Validation methods also include a review of drill logs and hardcopy cross section interpretation where required.
Site visits	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Company and contract geologists worked on the project area to conduct the drilling for numerous drilling programs. Andrew Pumphrey supervised the drilling programs and undertook daily inspections of drilling operations and geological logging undertaken by geologists. Reviews of HRZ procedures have been made throughout the Boorara exploration history. All procedures are deemed satisfactory. Not applicable
Geological interpretation	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> A 3D geological model of the Boorara Gold Project has been refined to a high standard (started in 2014). This began with a review of the geological interpretations supporting historical mineral resource estimates. This was followed by an extensive structural and lithological re-interpretation that was undertaken by an independent expert geologist. This interpretation involved extensive relogging of MRP diamond core and MRP RC drill chips and accurately measuring hundreds of quartz vein orientations in diamond core. Interpreted and fact surface geological mapping covering the Boorara Gold Project was also undertaken in 2016 by the independent expert structural geologist. There is a high degree of confidence in the geological data, as conveyed in the Measured resource category. Drill hole intercept logging, assay results, and structural interpretation from diamond core have formed the basis for the geological interpretation. The Boorara Trial Pit exposure of the SSW orebody allowed selected sampling of the various quartz vein orientations also geological and structural mapping. The Boorara Dolerite gold host contacts with the ultramafic on the west and sediments on the east has been accurately modelled. The wireframing was completed using RC and DD drilling and geology data for each drill hole. There has been no low grade threshold applied to the wireframing. It is assumed that historical logging is an accurate reflection of the geology intercepted. It is also assumed that no mineralisation occurs in the western ultramafic unit or the eastern sedimentary units. Historical mineralised intercepts that do occur in these units may be a result of logging differences between different geologists and have been ignored for this Mineral Resource estimate.

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Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> Where alternative geological or mineralisation interpretations have been available, the more conservative option has been selected. Opportunity exists to further increase ore tonnage with alternative interpretations, however it would be preferable to further drill test these areas. The gold mineralisation is confined to the Boorara Dolerite which is well mapped and modelled. The Stockwork zones at Boorara display complex short scale continuity, which has been modelled to include internal dilution. Other lodes displayed greater short-scale grade and geology continuity. Faulting with small scale off sets are noted in underground mapping, but impossible to model at deposit scale, and have been omitted from the model. These are assumed to have neutral effect on contained volume of mineralisation.
Dimensions	<ul style="list-style-type: none"> <i>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.</i> 	<ul style="list-style-type: none"> Boorara - The Grade Control Mineral Resource area is divided into three areas Regal, Crown Jewel and Royal. Regal grade control block model has a maximum strike length of 470m, Crown Jewel grade control block model has a maximum strike length of 180m and the Royal grade control block model has a maximum strike length of 590m. The maximum depth of the model extends to 50 metres below surface.
Estimation and modelling techniques	<ul style="list-style-type: none"> <i>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.</i> <i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i> <i>The assumptions made regarding recovery of by-products.</i> <i>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</i> 	<ul style="list-style-type: none"> Grade estimation was completed using Ordinary Kriging (OK) utilising Surpac 6.6.2 modelling software for the resource interpolation. Drill grid spacing ranges is typically around 20 metres. Drill hole sample data was flagged using domain codes generated from three dimensional mineralisation domains and then used to create the composite files. 1m assay composites were used. There were no extreme grade outliers, hence no top-cutting applied. Wireframe domains were based on a 0.5g/t Au mineralised envelope. With minimum downhole widths of 2m being applied to represent minimum mining thicknesses. Block sizes were 20m x 20m x 5m and minimum sub block size was 2.5m x 5.0m x 1.25m (x, y, z). No by-products were considered. No deleterious elements are present in significant amounts. There was no correlation between variables (only gold estimated). Mineralisation shapes were developed using 10m x 5m spaced RC grade control drilling to a vertical depth of 50m.. In addition to these mineralised domains, a base of oxidation and top of fresh rock dtm was also created and used. A reconciliation of tonnes and grade from 2016 trial pit mining to current block model tonnes and grade and has been deemed acceptable.

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Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i> <i>Any assumptions behind modelling of selective mining units.</i> <i>Any assumptions about correlation between variables.</i> <i>Description of how the geological interpretation was used to control the resource estimates.</i> <i>Discussion of basis for using or not using grade cutting or capping.</i> <i>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</i> 	
Moisture	<ul style="list-style-type: none"> <i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</i> 	<ul style="list-style-type: none"> The resource tonnage is reported using dry bulk density. Horizon assigned 1.8 for oxidised clay, 2.0 oxidised 2.4 for transitional and 2.7 for fresh rock. The Specific gravity values are also consistent with industry standards at other mines located in the Eastern Goldfields.
Cut-off parameters	<ul style="list-style-type: none"> <i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i> 	<ul style="list-style-type: none"> The Mineral Resources are reported inside the mineralisation wireframe that was constructed at a nominal 0.5g/t Au cut-off. The mineralisation wireframes also maintain a 2m minimum downhole thickness.

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Criteria	JORC Code explanation	Commentary
<p>Mining factors or assumptions</p>	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> An optimisation study has being completed for stage 1 open pit mining utilising a 120t class excavator and 100t trucks. Mining dilution of 18% is expected at the Regal and Crown Jewel deposits.
<p>Metallurgical factors or assumptions</p>	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Metallurgical work has been conducted at Boorara comprising gravity leach tests to assess amenability to conventional CIL leaching post gravity recovery. The results indicated high gravity and overall metallurgical recoveries through conventional processing. Bottle roll in leachwell solutions have confirmed >90% digestion is common. This demonstrates the mineralisation is amenable to conventional CN leach digestion. CIP metallurgical testwork undertaken in 2016 on oxide, transition and fresh samples from the NSW, CJ and SSW indicated gold recoveries for all samples ranged from 94-99%. CIP grind sensitivity metallurgical testwork undertaken in 2018 on NSW and SSW fresh ores resulted in recoveries of 86-95% on P80 175 micron and P80 75 micron samples. Gravity gold recoveries were generally high but ranged from 7-85%. One sample recorded a lower recovery of 62% that appears to be result of preg robbing carbonaceous shale. Slightly lower recoveries with the coarser grind size appear to be associated with the presence of pyrite and arsenopyrite. Preg-robbing carbonaceous shales have been noted at SSW, CJ and NSW on the eastern contact with the Boorara Dolerite and gold mineralisation. At the NSW carbonaceous shale is also found within the dolerite and on the western contact. During the mining process selective mining of the carbonaceous shale will be undertaken so that successful segregation and quarantining of the shale material can be achieved, so as to mitigate potential contamination of ore in the process plant. The carbonaceous shale is very visible rock type due its black colour and is also very soft given these unique characteristics MRP is confident that the segregation and quarantining will be successful.

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Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> • Heap leach testwork undertaken has indicated good recoveries (mid-eighties) from blends of 60:40 oxide and transitional ores. • A 30,000 t bulk sample from Boorara trail pit was processed through a CIP mill with recovery of 90.5%. • In the 1980's, a Vat Leach operation was carried out on a portion of the Boorara tailings dump. The remnants of this material ranges mainly from 0.2 – 0.4 g/t (head grade of 17 g/t), which also supports the leachability of the gold.
Environmental factors or assumptions	<ul style="list-style-type: none"> • <i>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</i> 	<ul style="list-style-type: none"> • The Boorara Project is located in a mature gold mining district within 15 km of Kalgoorlie-Boulder. Mining activity and prospecting activity has occurred at staggered interval over the past 100 years. There are no major water courses in the project area, although ephemeral streams cut across the project. There are no endangered flora or fauna populations. Situated within the Boorara Project area are reserves associated with the Boorara townsite. Permission has been granted from the City of Kalgoorlie-Boulder and the DMIRS to mine on the reserves. • Assumption of waste rock being of no environmental significance based on local experience in numerous greenschist facies gold deposits which contain significant carbonate mineralogy as part of the mineralisation and waste rock. This carbonate content has been shown to be an effective buffer to mitigate any risk of acid mine drainage regardless of the extent of sulphur in the ore/waste rock. • The deposit is located within an established mining area of considerable historical disturbance, and therefore there would be no obvious constraints on further mining and extraction activities which will allow for remediation of legacy issues where overlapping occurs • Ore would be mined from the deposit and transported to a 3rd party processing facility offsite. The deposit is located on an active granted Mining leases.
Bulk density	<ul style="list-style-type: none"> • <i>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.</i> • <i>The bulk density for bulk material must have been measured by methods that adequately account for void spaces</i> 	<ul style="list-style-type: none"> • Density is derived from 2,130 determinations via the Archimedes method on full or half HQ core of 10-30 cm in length. • Wax coatings on samples was used on porous rocks to prevent ingress of water during the Archimedes method. • Density was assigned to the model based on geology and oxide, transition, and fresh rock basis. These were based on averages from within the 3D space in which the density determinations were made.

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Criteria	JORC Code explanation	Commentary
	<p><i>(vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</i></p> <ul style="list-style-type: none"> • Discuss assumptions for bulk density estimates used in the evaluation process of the different materials. 	
Classification	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • The model was classified based on a combination of geological and structural confidence in interpretation, confidence in the representativeness and precision of sampling and assaying outcomes, model robustness and drill data density. • All relevant factors were taken into consideration. • The Resource categories accurately reflect the CP's view of their confidence in the deposit.
Audits or reviews	<ul style="list-style-type: none"> • The results of any audits or reviews of Mineral Resource estimates. 	<ul style="list-style-type: none"> • The initial audits and reviews have been carried out internally by highly experienced team of HRZ staff geologists. Earlier similar resource estimations were audited by external geological consultants and all methodology and procedures undertaken by HRZ were deemed acceptable.
Discussion of relative accuracy/ confidence	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • The relative accuracy of the Mineral Resource Estimate is reflected in the reporting of the Mineral Resource as per the guideline of the 2012 JORC code. The classification is supported by a sound understanding of the geology of the deposit, the drill hole spacing, historic drill data and a reasonable dataset supporting the density used in the resource model. Both competent persons (Andrew Bewsher and David O'Farrell) have over 20 years' experience, with several years working in the region. • The statement relates to the local estimate of tonnes and grade. • Confidence level in the validity of this local recoverable resource estimation based on the data available is moderate to high based on validation techniques used. • Mine reconciliation work from the trial pit although a small tonnage comparison provides a modest level of confidence.

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Criteria	JORC Code explanation	Commentary
	<p><i>accuracy and confidence of the estimate.</i></p> <ul style="list-style-type: none"> <i>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.</i> <i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i> 	

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Section 4 Estimation and Reporting of Ore Reserves

(Criteria listed in section 1, and where relevant in sections 2 and 3, also apply to this section)

Criteria	JORC Code explanation	Commentary																				
Mineral Resource estimate for conversion to Ore Reserves	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The resource block models and dates used as the basis for the Ore Reserve estimation are as follows: - <ul style="list-style-type: none"> Crown Jewel – “sth_gc_ok_2912020.mdl Regal West and Regal East – “regal_gc_ok_2412020.mdl” Where applicable these resource models have been depleted of material mined prior to January 2020. The Mineral Resources are inclusive of Ore Reserves. The following tables comprise the Ore Reserves for the Boorara Stage 1 Gold Project. Any Mineral Resources are reported as wholly inclusive of the Ore Reserves. Note rounding errors may occur. <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr style="background-color: #4F81BD; color: white;"> <th colspan="4">Boorara Stage 1 Ore Reserves</th> </tr> <tr style="background-color: #4F81BD; color: white;"> <th>Class</th> <th>kt</th> <th>Au (g/t)</th> <th>Au Oz</th> </tr> </thead> <tbody> <tr> <td>Proven</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0.00</td> <td style="text-align: center;">0</td> </tr> <tr> <td>Probable</td> <td style="text-align: center;">159</td> <td style="text-align: center;">1.9</td> <td style="text-align: center;">9,500</td> </tr> <tr> <td>Total</td> <td style="text-align: center;">159</td> <td style="text-align: center;">1.9</td> <td style="text-align: center;">9,500</td> </tr> </tbody> </table>	Boorara Stage 1 Ore Reserves				Class	kt	Au (g/t)	Au Oz	Proven	0	0.00	0	Probable	159	1.9	9,500	Total	159	1.9	9,500
Boorara Stage 1 Ore Reserves																						
Class	kt	Au (g/t)	Au Oz																			
Proven	0	0.00	0																			
Probable	159	1.9	9,500																			
Total	159	1.9	9,500																			
Site visits	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Mr Gary McCrae inspected the site on Thursday 23 January 2020. Not applicable 																				
Study status	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> This Ore Reserve was completed to a Feasibility Study level of confidence (i.e. +/- 15% accuracy) Detailed open pit mine designs have been completed. Project costs and parameters were either supplied by various contracting companies quoting on the project or by Horizon Minerals. Modifying factors have been considered. Any material classified as an Inferred Mineral Resource was not included in any of the Ore Reserves calculations. 																				

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Criteria	JORC Code explanation	Commentary																	
	<i>Modifying Factors have been considered.</i>																		
Cut-off parameters	<ul style="list-style-type: none"> The basis of the cut-off grade(s) or quality parameters applied. 	<ul style="list-style-type: none"> The economic cut-off grade applied to all material is 1.00/t Au, calculated by the following formula: $\frac{\text{Mining Dilution} \times \text{Processing Cost}}{(\text{Processing Recovery} \times (\text{Sell Price} - \text{Sell Cost}))}$ 																	
Mining factors or assumptions	<ul style="list-style-type: none"> The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design). The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc. The assumptions made regarding geotechnical parameters (e.g. pit slopes, stope sizes, etc), grade control and pre-production drilling. The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate). The mining dilution factors used. The mining recovery factors used. Any minimum mining widths used. The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion. 	<ul style="list-style-type: none"> Detailed open pit mine designs have been completed. Ore Reserve project costs and parameters were provided by Horizon Minerals. These costs and parameters were based upon contractor quoted pricing or known Horizon cost areas. Technical work and data consolidation was performed by Mr Gary McCrae of Minecomp Pty Ltd. A standard 90t truck fleet combination was selected to be applied to the bulk of the project - i.e. the utilisation of 90 tonne rigid-body trucks matched with a suitable excavator pairing. The fleet included standard ancillary machinery - grader, dozer and water cart. Designs have been based upon geotechnical investigations and recommendations resulting from a Feasibility level open pit slope design study conducted by Green Geotechnical Pty Ltd in 2018. A 18% mining dilution was used. A 95% mining recovery was used. The load and haul mining costs (\$/bcm) applied to the optimisation are summarised in the table below. Detailed costs were provided to Horizon by a reputable independent mining contractor specifically for the Boorara Gold Project. <table border="1" data-bbox="779 938 1438 1093"> <thead> <tr> <th>Material</th> <th>Average Cost at Surface</th> <th>Average increase per 5m bench</th> </tr> </thead> <tbody> <tr> <td>Ore</td> <td>A\$5.10</td> <td>A\$0.35</td> </tr> <tr> <td>Waste</td> <td>A\$4.40</td> <td>A\$0.30</td> </tr> </tbody> </table> <ul style="list-style-type: none"> The following table contains the drill and blast costs by material type (\$/bcm): <table border="1" data-bbox="779 1145 1218 1300"> <thead> <tr> <th>Material</th> <th>Cost</th> </tr> </thead> <tbody> <tr> <td>Oxide</td> <td>\$1.10</td> </tr> <tr> <td>Transitional</td> <td>\$2.30</td> </tr> <tr> <td>Fresh</td> <td>\$3.60</td> </tr> </tbody> </table> <ul style="list-style-type: none"> Additional costs of \$0.70/bcm was applied to all material to cover contractor fixed costs and site set-up costs. The Western Australia State Government royalty of 2.5% metal product royalty was applied to gold produced. Minimum mining widths of 12m were applied as pit design constraints appropriate to the 90 tonne truck fleets. 	Material	Average Cost at Surface	Average increase per 5m bench	Ore	A\$5.10	A\$0.35	Waste	A\$4.40	A\$0.30	Material	Cost	Oxide	\$1.10	Transitional	\$2.30	Fresh	\$3.60
Material	Average Cost at Surface	Average increase per 5m bench																	
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Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> The infrastructure requirements of the selected mining methods. 	<ul style="list-style-type: none"> The Ore Reserve estimation is inclusive of only the JORC classified Measured and Indicated Mineral Resource classified material types Mining infrastructure will be temporary and kept to a minimum due to the short life of mine.
Metallurgical factors or assumptions	<ul style="list-style-type: none"> 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 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? 	<ul style="list-style-type: none"> The planned treatment of Boorara Stage 1 Gold Project ore will take place at a Third Party owned, toll treatment facility using conventional CIL plant methods. This is considered a well-tested existing technology. CIL is considered most appropriate for the processing of ore of the style of mineralisation which comprises the Boorara Gold Project. This was demonstrated by the successful treatment of a parcel of Boorara Gold Project ore at the FMR owned Greenfields Mill in 2016 and ore metallurgical test work on oxide, transitional and primary ore replicating plant conditions and parameters. Metallurgical test work samples were sourced from diamond drill core. The metallurgical characterisation test work program on the metallurgical core samples included detailed elemental head grade analysis, gravity and leach recovery test work, bond work and abrasiveness indexes and reagent consumptions. Accordingly, the samples used for the metallurgical test work were considered representative of the deposit and proposed treatment methodology. A flat processing recovery of 91% was applied to all material at the Boorara Stage 1 Gold Project, based on metallurgical testwork undertaken between 2016 and 2018 by ALS Metallurgy and Bureau Veritas Minerals, in addition to metallurgical data obtained from treating the trial pit ore in 2016 successfully through FMR Investments' Greenfields Mill. The processing all-inclusive operating cost per tonne of ore was provided by Horizon, and is comprised of: <ul style="list-style-type: none"> processing and haulage cost with third parties which cannot be disclosed as they are commercial in confidence A\$2.00/t G&A overheads cost A\$1.00/t grade control cost Horizon has an agreement with the operator of a nearby processing plant to treat the ore from the Boorara Stage 1 Gold Project
Environmental	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> The deposit is located on a granted mining leases which is situated on the Hampton Hill Pastoral Lease. Environmental studies have been carried out in conjunction with these works to a detailed level to allow the lodgement of a Mining Proposal (MP) for these areas. These works include flora and fauna surveys, existing land disturbance surveys, waste rock sampling, soil analysis, hydrology, Aboriginal heritage surveys and database reviews. Waste Rock Landforms are conservatively designed to take into consideration high proportions of oxide waste and will be rehabilitated as per the license requirements.

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Criteria	JORC Code explanation	Commentary
	<i>approvals for process residue storage and waste dumps should be reported.</i>	<ul style="list-style-type: none"> Characterisation testwork results have resulted in the waste rock being classified as non-acid forming.
Infrastructure	<ul style="list-style-type: none"> <i>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.</i> 	<ul style="list-style-type: none"> The Boorara Gold Project is located approximately 20km east of Kalgoorlie-Boulder with the sealed Bulong and Mt Monger roads allowing easy access. Prior cleared land, a small open pit and waste dumps, and underground workings exist throughout the area. The existing site offices are on grid power. Potable water is trucked to site into existing tanks. The bulk of the site labour is planned to be sourced from, and commute between, the City of Kalgoorlie-Boulder and the Boorara Gold Project.
Costs	<ul style="list-style-type: none"> <i>The derivation of, or assumptions made, regarding projected capital costs in the study.</i> <i>The methodology used to estimate operating costs.</i> <i>Allowances made for the content of deleterious elements.</i> <i>The source of exchange rates used in the study.</i> <i>Derivation of transportation charges.</i> <i>The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.</i> <i>The allowances made for royalties payable, both Government and private.</i> 	<ul style="list-style-type: none"> Capital costs have been included in the economic analysis conducted by Horizon Minerals Mining operating costs were provided by a reputable mining contractor with existing operations in the area. Processing operating costs are based on a contracted rate via a toll treatment agreement at nearby processing facility in the region. Elemental analysis and metallurgical characterisation test work carried out as part of this study did not show any deleterious elements that would affect process costs The gold price assumed for this study is AU\$2,000/oz No exchange rates were used in the study; all costs and revenues are in Australian Dollars The Western Australia state government royalty of 2.5% metal product royalty was applied to all gold produced. A private royalty of \$1.00/tonne has been applied in the study.

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Criteria	JORC Code explanation	Commentary
Revenue factors	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The head grade is derived from the Mineral Resource and Modifying Factors as described above. An assumed base gold price of AU\$2,000 per gold ounce was applied to the final study. Doré transport and refining costs were applied at \$1.75/oz.
Market assessment	<ul style="list-style-type: none"> The demand, supply and stock situation for the 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. 	<ul style="list-style-type: none"> Gold is a precious metal and thus subject to fluctuations, due principally to market sentiment. Payment will be made based on the value of the contained gold in each ore parcel (Recovered Gold Credits) based on the Gold Recovery Statement derived from Gold Dore bars refined and out turned by the refiner adjusted for Gold in Circuit. Recovered Gold Credits will be sold at the AUD Spot Gold Price as quoted by the Refiner on the business day preceding the delivery of the Gold Recovery Statement. The gold sell price assumed was AU\$2,000/oz. The planned volume of supply forecast is 8,800oz.
Economic	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Economic analysis was undertaken based solely on the Ore Reserve pit designs. Only JORC classified Measured and Indicated Material was included in the analysis; all Inferred material was treated as waste. A pre-tax NPV of AUD\$2.8M (at A\$2,000 per ounce) was calculated from the economic analysis of the Boorara Stage 1 Gold Project LOM. As the project life is less than one year, discount rate has no effect on the economic analysis. Inputs to the economic analysis include Modifying Factors as described above. Sensitivity studies were carried out at the Whittle optimisation level. Standard linear deviations were observed.
Social	<ul style="list-style-type: none"> The status of agreements with key stakeholders and matters leading to social licence to operate. 	<ul style="list-style-type: none"> There are no known significant social licencing requirements for the project. Horizon Minerals regularly engages with the local community to maintain a healthy relationship.

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Criteria	JORC Code explanation	Commentary
Other	<ul style="list-style-type: none"> • <i>To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:</i> • <i>Any identified material naturally occurring risks.</i> • <i>The status of material legal agreements and marketing arrangements.</i> • <i>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 study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.</i> 	<ul style="list-style-type: none"> • There are no known significant naturally occurring risks to the project. • All current deposits are located on granted Mining Leases. • Barring standard economic and/or labour force fluctuations or other unforeseen acts there are no known significant impacts that could affect the Ore Reserves specific to the area. • Horizon Minerals Ltd will be responsible for all of the mining operations and ore haulage, whilst the processing party will be responsible for milling of the ore. • All current deposits are located on granted Mining Leases and mining will be subject to the DMIRS approval process. There are no currently identified grounds upon which it is likely that mining approvals will be withheld; all Mining Proposals and Project Management Plans are well advanced and clearing permit has been approved.
Classification	<ul style="list-style-type: none"> • <i>The basis for the classification of the Ore Reserves into varying confidence categories.</i> • <i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i> • <i>The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).</i> 	<ul style="list-style-type: none"> • Measured Mineral Resources have been converted to Proven Ore Reserves. Indicated Mineral Resources have been converted to Probable Ore Reserves. • The estimated Boorara Stage 1 Gold Project Ore Reserves are, in the opinion of the Competent Person, appropriate for this style of deposit.

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Audits or reviews	<ul style="list-style-type: none"> <i>The results of any audits or reviews of Ore Reserve estimates.</i> 	<ul style="list-style-type: none"> No external audits or reviews have taken place for the portion of Ore Reserve covering the Boorara Stage 1 gold project. Minecomp has completed an internal review of this Ore Reserve estimate.
Discussion of relative accuracy/confidence	<ul style="list-style-type: none"> <i>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.</i> <i>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.</i> <i>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.</i> 	<ul style="list-style-type: none"> The level of study carried out as part of this Boorara Stage 1 gold project Ore Reserve is to a Feasibility Study level (+/-15%). The relative accuracy of the estimate is reflected in the reporting of the Ore Reserves as per the guidelines re: modifying factors, study levels and Competent Persons contained in the JORC 2012 Code. This statement relates to global estimates of tonnes and grade. It should be noted that the A\$2,000/oz pit shell was selected on which to base final pit designs. Sensitivity studies were carried out. Standard linear deviations were observed. The project is most susceptible to fluctuations in gold price. No relevant modern production data as yet exists.

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