

JACQUES FIND – PEYES FARM RESOURCE UPDATE

HIGHLIGHTS

- Successful infill drilling completed at the Jacques Find – Peyes Farm gold project, part of the Teal project area, 10km northwest of Kalgoorlie in the Western Australian goldfields
- A total of 94 RC holes and six diamond holes were completed for 8,291m to infill areas for improved classification and for structural, geotechnical and metallurgical assessment
- Significant results received included ¹:
 - **19m @ 12.53g/t Au from 42m** (JFD2001) **and 8m @ 12.10g/t Au from 60m** (JFRC20003)
 - **12m @ 4.70g/t Au from 60m** (JFRC20004) **and 8m @ 6.28g/t Au from 72m** (JFRC20008)
 - **24m @ 3.04g/t Au from 80m including 4m @ 6.47g/t Au from 84m** (JFRC20040)
 - **6m @ 6.06g/t Au from 54m including 1m @ 25.6g/t Au from 59m** (JFRC20012)
 - **4m @ 9.28g/t Au from 52m** (JFRC20013) **and 8m @ 4.17g/t Au from 44m** (JFRC20007)
 - **4m @ 18.17g/t Au from 79m including 1m @ 61.21g/t Au from 81m** (PFRC20038)
 - **7m @ 3.97g/t Au from 30m** (PFRC20029)
 - **5m @ 2.87g/t Au from 32m, 4m @ 1.55g/t Au from 40m and 1m @ 16.35g/t Au from 57m** (PFRC20008)
 - **2m @ 5.65g/t Au from 28m, 2m @ 1.44g/t Au from 44m and 6m @ 2.25g/t Au from 73m** (PFRC20022)
- Results confirm excellent width and grade continuity within the supergene zone with mineralisation remaining open to the north and south with further drilling planned
- Updated independent Mineral Resource estimate now compiled and stands at:
 - **1.74Mt grading 2.32g/t Au for 130,000oz at a 0.8g/t Au lower cut-off grade** ²
- Importantly, over 55% of the ounces are now in the Indicated Resource category ²
- Metallurgical results show gold recoveries of 89.4% and 69.9% for the Jacques Find – Peyes Farm oxide-transitional composites respectively with further test work underway
- Mine optimisation and open pit design work is well advanced with a maiden Ore Reserve for Jacques Find – Peyes Farm expected in the December Quarter 2021 ³

Commenting on the resource update, Horizon Managing Director Mr Jon Price said:

“After the successful completion of the Teal gold mine in 2018, the exploration team have done an excellent job in defining additional resources within the Teal gold camp 10km northwest of Kalgoorlie-Boulder. We now look forward to completing mine optimisation and design studies for Ore Reserve generation in the December Quarter 2021 as part of the consolidated Feasibility Study.”

¹ As announced to the ASX on 16 February and 20 April 2021 ² See Tables 1-2 and Competent Persons Statement on page 5 and JORC Tables on Page 13. ³ See Forward Looking and Cautionary Statements on Page 12.

Overview

Horizon Minerals Limited (ASX: HRZ, Horizon or the Company) is pleased to announce an updated Mineral Resource Estimate (MRE) for the Jacques Find – Peyes Farm project located within the 100% owned Teal gold project area, located 10km northwest of Kalgoorlie-Boulder in the heart of the Western Australian goldfields (Figure 1).

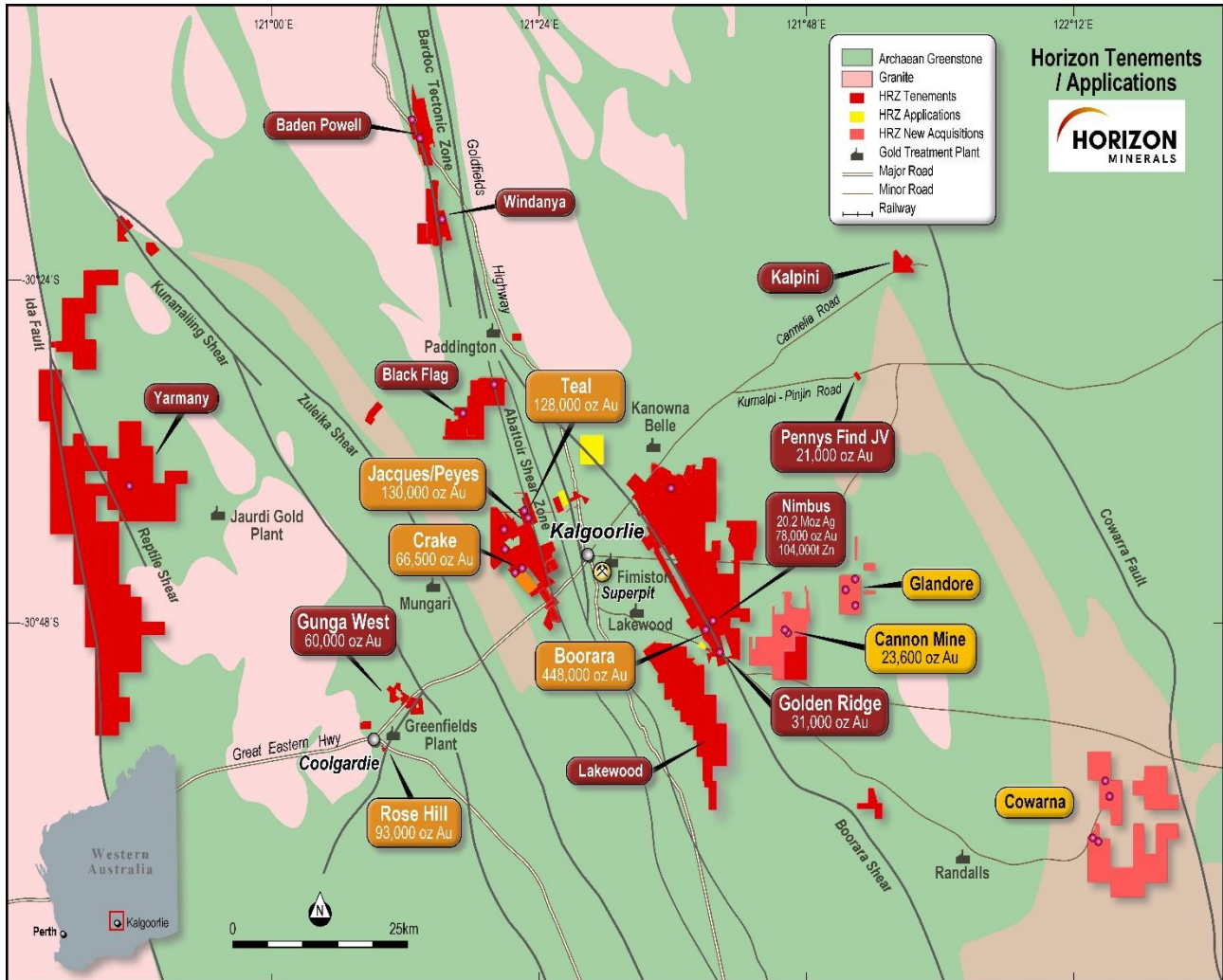


Figure 1: Kalgoorlie Regional Project area location and surrounding infrastructure

Jacques Find – Peyes Farm are two of six core open pit and underground satellite gold projects being advanced to complement the baseload Boorara gold project as part of the consolidated Feasibility Study to deliver a minimum five-year initial mine plan and underpin the establishment of a stand-alone centralised processing facility at the Boorara mine site.

RC and diamond infill and extensional drilling was completed in the December 2020 and March 2021 quarters with all data now incorporated into the geological model for the updated Mineral Resource Estimate. The new model will now be used to generate a maiden Ore Reserve for Jacques Find – Peyes Farm and is expected for completion in the December Quarter 2021.¹

¹ see Cautionary and Forward-Looking Statement on Page 16.

Project Geology

The Jacques Find – Peyes Farm gold deposits comprise a well-defined supergene blanket located above shears and quartz within structurally controlled felsic schists, tuffs, sediments and porphyry rocks at depth. Mineralisation is strongly influenced by cross cutting structures and stratigraphy to the north to northwest striking shear zone which trend parallel to the regional NNW geological trend of the Abattoir Shear.

Gold mineralisation is developed in a flat lying oxide supergene deposit located between 22-80 metres vertical depth and in primary mineralisation within a sub vertical shear zone. The mineralisation trends N-NW over a strike length of approximately 800 metres.

Resource Update

Previous drilling by the Company during the 2016/2017 campaigns focussed on building the resource inventory with mostly step back and extension drilling. Combined with an improved gold price and encouraged by the success of the nearby Teal gold mine (**open pit produced 229,000t @ 3.2g/t Au for 21,836 oz**), the Company designed a program to maximise the open pittonable tonnes and grade from the oxide and transitional ore zones.

Preliminary test work suggests that the metallurgy is similar to the Teal deposit mined and processed successfully in 2018. Teal was mined to 65m vertical depth with excellent recoveries in both the oxide (94%) and transition (90%) ore zones. In the deeper primary sulphide mineralisation, typically below 80-90m depth, the metallurgy of the ore is semi-refractory and requires pre-oxidation through roasting or ultra-fine grinding to achieve acceptable recoveries.

As announced to the ASX on 16 February and 20 April 2021, a total of 94 RC holes and six diamond holes for 8,291m were drilled at Jacques Find – Peyes Farm in 2020/2021 (Figure 2). The six large diameter HQ3 diamond drill holes were completed for structural geology, geotechnical assessment and metallurgical testwork for Ore Reserve generation.

Variations in the depth of weathering and the fresh rock boundary were mapped in greater detail with the new drilling enabling an assessment of the supergene ore for conventional milling and treatment options to be reviewed on the primary sulphide mineralisation.

The 2020/2021 drilling also improved drill density to a more uniform 10m spacing allowing improved definition of the ore zones. New high-grade shoots were also discovered in this program. Similar to Teal, the highest grades were typically observed in the supergene zone at 25-80m vertical depth. Mineralisation remains open to the north and south within the supergene enrichment zone.

Significant downhole RC and diamond intercepts reported in 2021 included ¹:

- **19m @ 12.53g/t Au from 42m** (JFD2001) **and 8m @ 12.10g/t Au from 60m** (JFRC20003)
- **12m @ 4.70g/t Au from 60m** (JFRC20004) **and 8m @ 6.28g/t Au from 72m** (JFRC20008)
- **24m @ 3.04g/t Au from 80m including 4m @ 6.47g/t Au from 84m** (JFRC20040)
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- **7m @ 3.97g/t Au from 30m** (PFRC20029)
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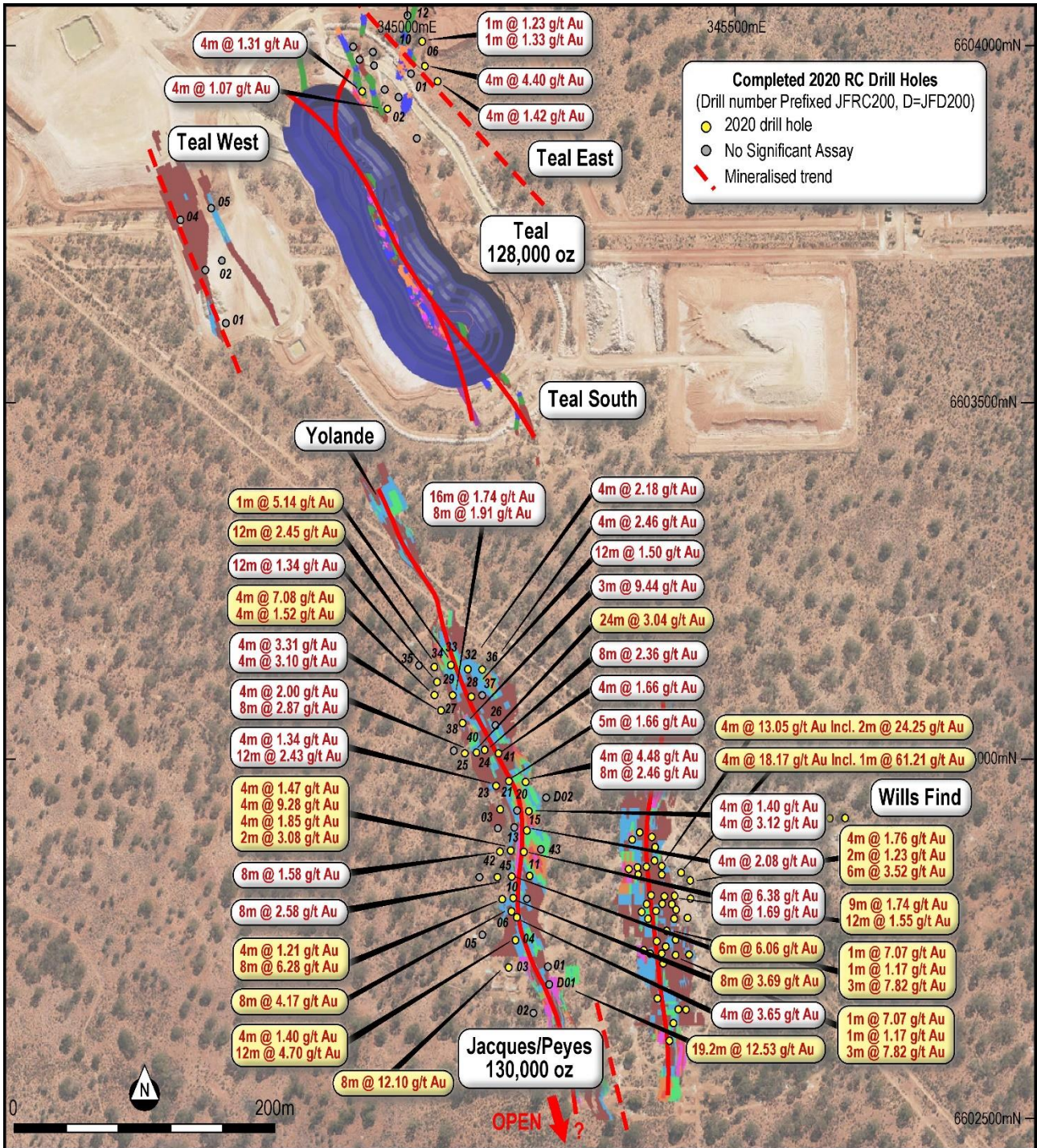


Figure 2: Jacques Find – Peyes Farm project drilling results to date ¹

¹ As announced to the ASX on 16 February and 20 April 2021.

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The drilling data was compiled and used to generate an independent Mineral Resource estimate compliant with the 2012 JORC Code of 1.74Mt grading 2.32g/t Au for 130,000oz at a 0.8g/t Au lower grade cut-off*.

Further breakdowns of categories are shown in Table 1 and 2.

Table 1: Jacques Find – Peyes Farm Project – by Classification at 0.8 g/t Au Cut Off *

Classification	Tonnes (Kt)	Grade (g/t)	Ounces
Measured			
Indicated	968	2.59	81,000
Inferred	774	1.98	49,000
Grand Total	1,742	2.32	130,000

Tonnages are dry metric tonnes. Minor discrepancies may occur due to rounding.

Table 2: Jacques Find – Peyes Farm Project – by Classification at 0.5 g/t Au Cut Off *

Classification	Tonnes (Kt)	Grade (g/t)	Ounces
Measured			
Indicated	997	2.53	81,000
Inferred	856	1.85	51,000
Grand Total	1,853	2.22	132,000

Tonnages are dry metric tonnes. Minor discrepancies may occur due to rounding.

* The information in this report related to the Jacques-Peyes Mineral Resource estimate is based on work completed by Mr Dave O'Farrell: BSc (Hons), MAusIMM, Exploration Manager for Horizon Minerals Ltd and Mr Mark Drabble: B.App. Sci. (Geology), MAusIMM, MAIG, Principal Consultant at Optiro Pty Ltd. Mr O'Farrell was responsible for database and data quality at the Jacques Find and Peyes Farm deposits. Mr Drabble was responsible for the development of the geological model, mineralisation interpretations, resource estimation, classification and reporting.

Mr O'Farrell and Mr Drabble have sufficient experience relevant to the style of mineralisation and deposit type under consideration and to the activities 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 O'Farrell and Mr Drabble consent to the inclusion in the report of matters based on their information in the form and context in which it appears.

Composite RC samples were submitted to Independent Metallurgical Operations for initial metallurgical testwork. Overall gold recoveries were 89.4% and 69.9% for the oxide composites for Jacques Find and Peyes Farm respectively with gravity recoveries at 19.5% and 28.4%. Further test work is underway for the Peyes Farm supergene material to ensure only the supergene material is represented due to the semi-refractory nature of the fresher sulphide below.

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Next Steps

The updated MRE will now be used for open pit mine optimisation, design and economic analysis for generation of a maiden Ore Reserve for Jacques Find – Peyes Farm expected in the December Quarter 2021.

Significant mineralisation remains outside the current resource envelope with further drilling planned in 2021 testing the supergene strike extensions of the mineralisation. Drilling is also planned at the Teal project testing strike and dip extensions from the historic Teal open cut mine.

Approved for release by the Board of Directors

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Listing Rule 5.8.1 Disclosures

Mineral Resource Statement

The Mineral Resource Statement for the Jacques Find and Peyes Farm Gold Mineral Resource Estimates (MRE) was prepared by independent consultant Optiro Pty Ltd during July 2021 and is reported according to the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the 'JORC Code') 2012 edition.

In the opinion of Optiro, the resource evaluation reported herein is a reasonable representation of the global gold Mineral Resources within the Jacques Find and Peyes Farm deposits, based on sampling data from RC and diamond (DD) drilling available as of June 2021. The Indicated and Inferred Mineral Resources comprise oxidised, transitional and fresh rock. The Mineral Resource Statement is presented in Table 3.

Table 3: Jacques Find and Peyes Farm Mineral Resources at a 0.8 g/t Au cut-of

Classification	Tonnes (Kt)	Grade (g/t)	Ounces
Measured			
Indicated	968	2.59	81,000
Inferred	774	1.98	49,000
Grand Total	1,742	2.32	130,000

Data used for the estimate is predominantly RC drilling with some diamond holes. The dataset totals 400 RC, 3 RC holes with diamond tails and six diamond holes for 44,093m.

Competent Persons Statement

The information in this report related to the Jacques Find – Peyes farm Mineral Resource estimate is based on work completed by Mr Dave O’Farrell: BSc (Hons), MAusIMM, Exploration Manager for Horizon Minerals Ltd and Mr Mark Drabble: B.App. Sci. (Geology), MAusIMM, MAIG, Principal Consultant at Optiro Pty Ltd. Mr O’Farrell was responsible for database and data quality at the Jacques Find and Peyes Farm deposits. Mr Drabble was responsible for the development of the geological model, mineralisation interpretations, resource estimation, classification and reporting.

Mr O’Farrell and Mr Drabble have sufficient experience relevant to the style of mineralisation and deposit type under consideration and to the activities 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 O’Farrell and Mr Drabble consent to the inclusion in the report of matters based on their information in the form and context in which it appears.

Drilling Techniques

The Jacques Find /Peyes Farm (Jacques/Peyes) mineralisation has been sampled using 443 Reverse Circulation (RC) drillholes, 6 Diamond Drilling (DDH), and 3 RC drillholes with Diamond Tails.

HRZ RC drilling was undertaken with a 4.5-inch face sampling hammer bit. A variety of drilling companies have been used. IRC/HRZ typically used HQ3 sized diamond drill holes.

85% of all drill holes contributing to the resource estimation were drilled by HRZ Minerals (HRZ, previously Intermin Resources - IRC) from 2009 to 2020.

Historical Drilling

Historical drilling was undertaken with Schramm rig (“Reverse Circulation Percussion”). Delta Gold used Monodrill to drill NQ2 Diamond drill holes.

RC drilling by The Australian Emerald Company in 1991 were excluded due to data quality issues.

Sampling and Sub-Sampling Techniques

HRZ/IRC drilling and sampling was undertaken by qualified company geologists under the supervision of the exploration manager. 1m RC samples were taken and a 4m composite generated from spear samples. 4m composites returning >0.2 ppm Au had the 1m samples assayed.

Half core was sampled nominally over 1m intervals adjusted for geological boundaries.

Historical Sampling

Historical drilling was managed by qualified geologists. 1m RC samples were taken and a 5m composite generated from spear samples. Composite samples returning 100+ ppb Au had the 1m samples assayed. Diamond core was assayed using half core 1m intervals in geologically prospective zones and v-cut 4m composite intervals for the remaining core.

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Sample Analysis Method

Approximately 1.5kg – 2 g of RC sample or 3-4kg of drill core was submitted to the laboratory. All samples were pulverised to produce a 50g charge for fire assay. Samples were assayed for Au only. Analysis was performed by accredited laboratories in Kalgoorlie.

Geology and Geological Interpretation

The Jacques Find and Peyes Farm tenement area is in the Eastern Goldfields of Western Australia, approximately 8km west of Kalgoorlie–Boulder. The deposit lies within the northwest trending Binduli/Mt Pleasant Domes that form part of the Ora Banda Domain within the Archaean Kalgoorlie Terrain. The deposit geology is described by Tripp (2018) as being hosted in the lower Black Flag Group, with felsic to intermediate volcanic and volcanoclastic rocks of the Gibson-Honman Formation, and andesitic rocks of the White Flag Formation. The regional geology shows a complex zone of felsic and intermediate volcanics, with minor black shales and mafic units. The regional northwest striking Abattoir Shear zone bounds the package of highly deformed rocks and the Peyes Farm shear is located within the Abattoir corridor. Narrow quartz-carbonate veins are visible in diamond core and show steep orientations parallel to stratigraphy.

The Peyes Farm (Peyes) deposit is 600m long that strikes north-south with a width of up to 50m (fresh mineralisation). Located close to the Peyes Farm Shear Zone the veining is hosted within a felsic porphyry unit with an interpreted package of 11 primary (fresh) veins that dip steeply to the east and four oxide domains. The Jacques Find deposit is 1,000m long and strikes north-west (340° magnetic) with a width of up to 85m (fresh mineralisation). The veining is hosted within an arcuate package of felsic volcanoclastics bounded by felsic porphyry units with intercalated black shale units. It has an interpreted package of 18 primary veins that dip steeply to the west and six oxide domains.

Mineralisation wireframes were interpreted using Leapfrog Geo 3D with graphical selection of intervals used to form vein models of the mineralised domains. Optiro used a nominal grade cut-off of 0.3g/t gold to define significant mineralisation in discrete packages of 1m to 10m thickness. Geological continuity was defined by a 3D geological model of the felsic intrusive and black shale units. These were assessed using an exploratory data analysis (EDA) to have significant spatial relationships to the mineralisation in terms of vein orientations, extents and boundaries between veins. In general, the black shales are poorly mineralised, and these were applied as constraints to the Jacques vein models. The Peyes vein sets are developed within the folded felsic intrusive unit and are consistent with the dip of the intrusion. The resulting geometry of the primary mineralisation is of arcuate shear zones with dilatant packages of en-echelon veining developed around flexures in the host lithology.

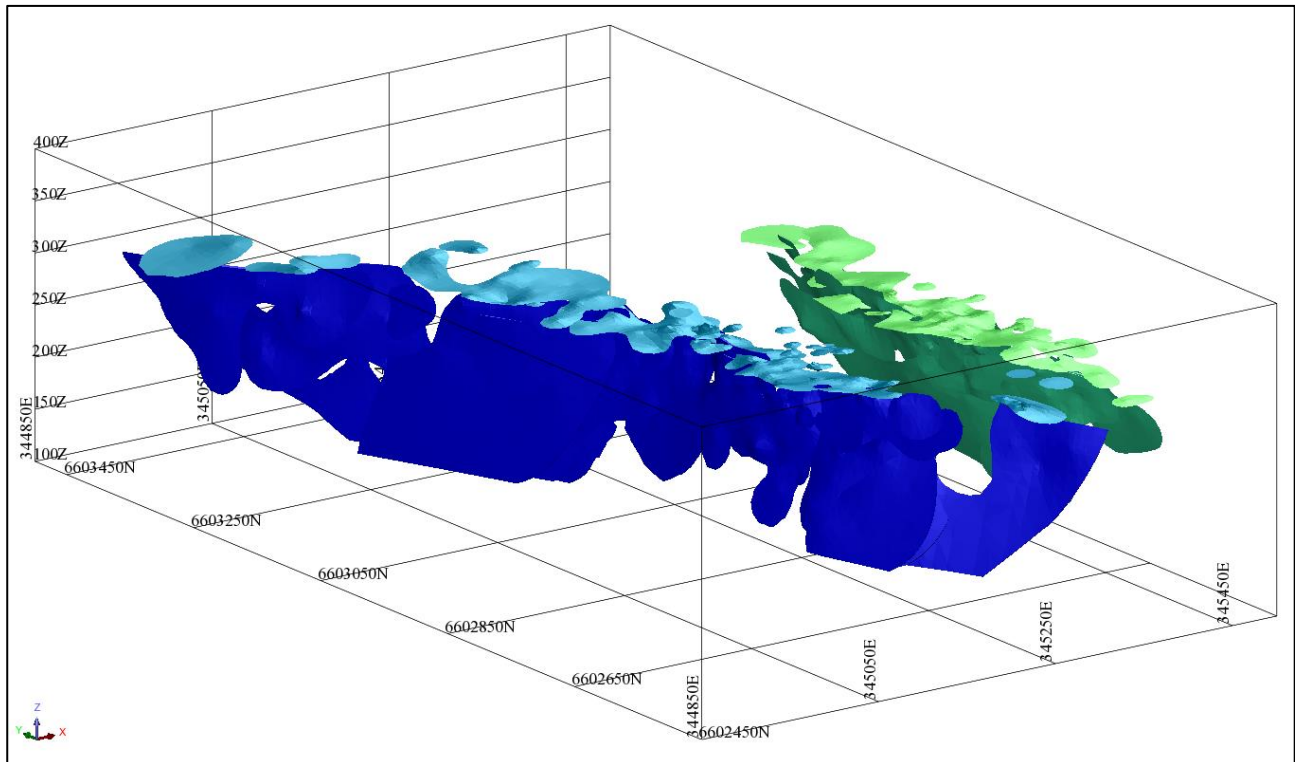


Figure 3: Jacques Find (Blue) – Peyes Farm (Green) Oxide and Primary Mineralised Domains

Estimation Methodology

Grades were composited to 1m downhole constrained within the mineralised domains (Figure 3). In the few situations where the fresh lodes extend into the oxide, the oxide domains were coded to overprint the fresh lodes. Naïve statistics show low variability within the mineralised domains which is a function of the high selectivity of the domaining process, with only 10% of the samples below the nominal domaining cut-off grade of 0.3g/t gold. Only eight (of 39) domains required top-cutting to reduce the effects of grade outliers, especially in the less informed areas of the block model. For most domains only one outlier value required capping, with the top-cut value for Jacques between 5 g/t gold to 30g/t gold and for Peyes 10g/t gold to 30g/t gold.

Domains were grouped into areas for variography and validation studies: Jacques fresh, Jacques oxide, Peyes fresh and Peyes oxide. Variography was completed using Supervisor V8 software on the 1 m composites to determine mineralisation continuity within the identified grouped domains. A combination of traditional spherical and median indicator transformed experimental variograms were used. The variance parameters defined using normal scores were back-transformed prior to estimation.

Variography across all domain groups demonstrated short range continuity of up to 39 m in the oxide zones and 32 m in the fresh zones, which is consistent with the modelled geology of short-scale en-

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echelon shear vein packages. The nugget was in the order of 40%, and no plunge could be determined.

The block model was set up with no grid rotation and contains both the Jacques and Peyes deposits for planned open pit optimisation studies. Estimation was by ordinary kriging into individual domains. The search ellipsoids for the mineralised domains were aligned to the mineralised trend of each domain using dynamic anisotropy (DA) following vein reference planes generated in Leapfrog.

Classification Criteria

The Mineral Resource has then been classified as Indicated Mineral Resource, Inferred Mineral Resource or unclassified based on drill hole spacing, geological continuity and estimation quality parameters. No Measured Mineral Resource was classified.

Indicated Mineral Resource is supported by exploration drilling with nominal 15m x 25m spacing, supported by 15 to over 20 samples. Geological continuity is demonstrated by the geological and structural interpretations that constrain the mineralisation, and vein orientations in diamond holes.

Inferred Mineral Resource was defined where there was a low to moderate level of geological confidence in geometry, there was still continuity of grade and drill spacing was greater than 25m. It is supported by less than 15 samples in the estimate. Geological support was defined to a lower level of confidence in terms of continuity and extent. Unclassified mineralisation has not been included in this Mineral Resource and is the material that has no estimated grades and is unsupported by geology and drilling.

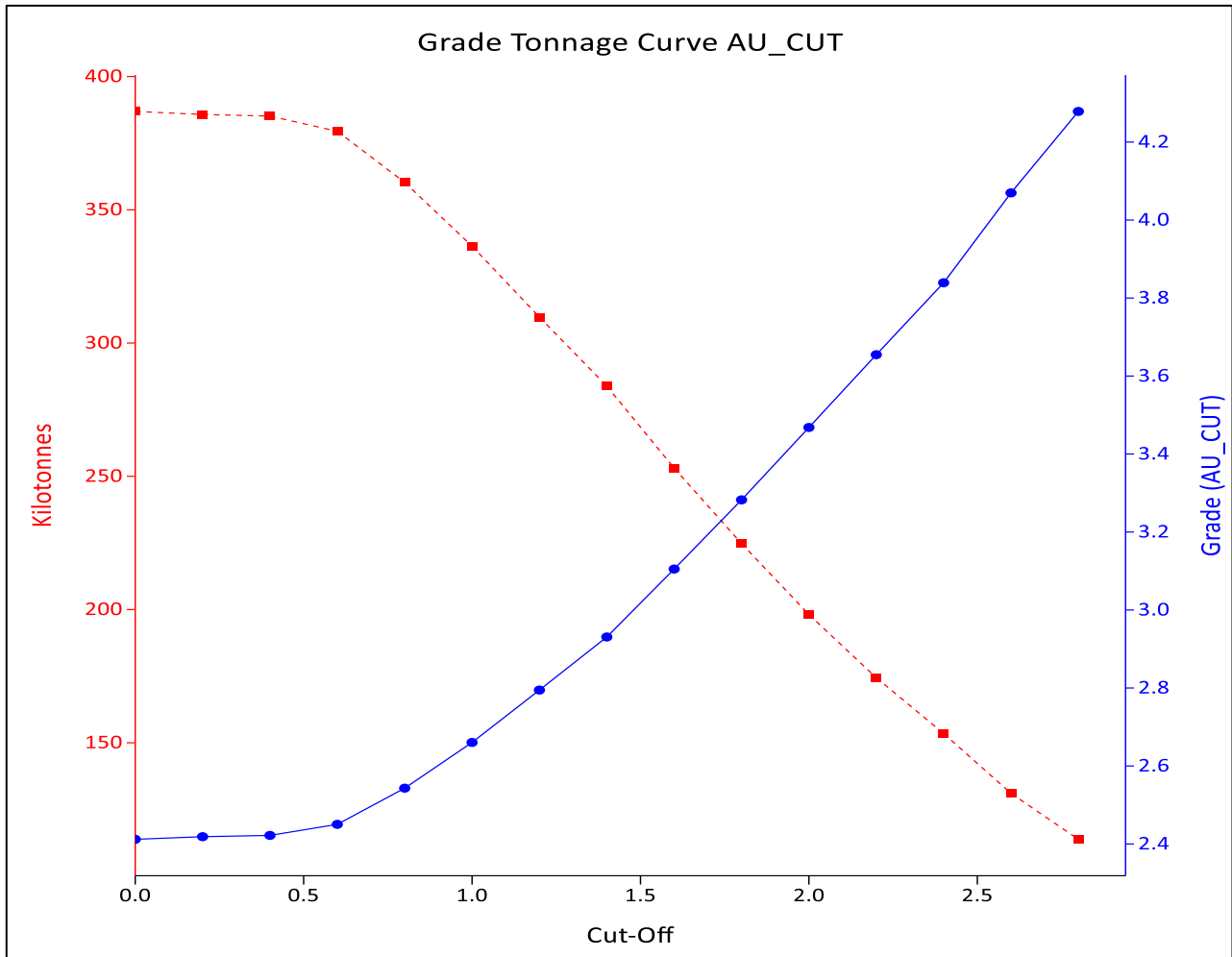
Grade reliability, volume uncertainty and assay uncertainty have all been considered in the assignment of Mineral Resource categories. Consideration has been given to all relevant factors in the classification of the Mineral Resource. The classification reflects the Competent Person's view of the deposit.

Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. The MRE does not account for selectivity, mining loss and dilution. This MRE update includes Inferred Mineral Resources which are unable to have economic considerations applied to them, nor is there certainty that further sampling will enable them to be converted to Measured or Indicated Mineral Resources.

Cut-off Grade

The Mineral Resource cut-off grade for reporting of global gold resources at the Jacques and Peyes deposits was 0.8g/t gold. This was based on consideration of grade-tonnage data, selectivity and benchmarking against comparable sized deposits of similar mineralisation style and tenor. Tonnages were estimated on a dry basis.

Figure 5: Grade-tonnage curve for the Jacques Find and Peyes Farm deposits – Indicated and Inferred Mineral Resources



Bulk Density

Bulk density (SG) was assigned to the block model based on weathering type. The bulk density value was assigned from the 2018 Jacques and Peyes MRE’s and these are representative of the lithologies and mineralisation in eastern goldfields gold deposits:

- Oxide: 1.8g/cm³ used for the material above the BOCO (base of complete oxidisation) weathering profile.
- Transition: 2.2g/cm³ used for the material between the BOCO and TOFR (Top of Fresh Rock) weathering profiles.
- Fresh Rock: 2.6g/cm³ used for the fresh rock material below the TOFR weathering profile.

Five diamond holes have been tested for bulk density at Jacques and Peyes since the last MRE update. Optiro reviewed the density values which were derived from 35 experimental data primarily based on Archimedean determinations from predominantly unweathered or transitional core pieces.

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Project History and Historical Mineral Resources

The area has been prospected and mined as far back as 1901. Production records are only available for 1919-1920 where 34.54 tonnes of ore were mined yielding 10.8 g/t au.

Drilling has been undertaken at Jacques-Peyes since 1987, initially by Viking Resources Limited, Placer Dome Asia Pacific, Delta Gold and The Australian Emerald Company. Most drill focussed exploration work has been done by Horizon Minerals, initially operating as Intermin Resources.

Preliminary resource estimations in 2000 – 2001 estimated resources in the order of 40,000oz of gold. At a 0.8 g/t reporting cut off, the most recent previous estimate for Jacques Find, completed in 2018 by HGS, estimated a resource of 2.33Mt at 1.92g/t Au for 144,000oz of gold. At Peyes Farm the estimated resource contained 0.7Mt at 1.48g/t Au for 34,000oz of gold.¹

Assessment of Reasonable Prospects for Eventual Economic Extraction

The assessment of RPEEE used the 150mRL, which is approximately 200m below the natural surface as the maximum depth that could potentially form an economic pit shell given the deposit geometry and current drilling. This is based on the results of similar optimisations run by HRZ on deposits in the Kalgoorlie area.

Metallurgy

Metallurgical results show gold recoveries of 89.4% and 69.9% for the Jacques Find and Peyes Farm oxide-transitional composites respectively with further test work underway

Mining focus is on the oxide/supergene material. Material at depth is 'semi refractory' and will require a different process route.

¹ As announced to the ASX on 19 September 2018.

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.

Appendix 1 – Kalgoorlie (Crake) Regional Gold Projects

JORC Code (2012) Table 1, Section 1, 2 and 3

The information in this report related to the Jacques-Peyes Mineral Resource estimate is based on work completed by Mr Dave O’Farrell: BSc (Hons), MAusIMM, Exploration Manager for Horizon Minerals Ltd and Mr Mark Drabble: B.App. Sci. (Geology), MAusIMM, MAIG, Principal Consultant at Optiro Pty Ltd. Mr O’Farrell was responsible for database and data quality at the Jacques Find and Peyes Farm deposits. Mr Drabble was responsible for the development of the geological model, mineralisation interpretations, resource estimation, classification and reporting.

Mr O’Farrell and Mr Drabble have sufficient experience relevant to the style of mineralisation and deposit type under consideration and to the activities 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 O’Farrell and Mr Drabble consent to the inclusion in the report of matters based on their information in the form and context in which it appears.

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.	<p>The Jacques Find /Peyes Farm (Jacques/Peyes) mineralisation has been sampled using 443 Reverse Circulation (RC) drillholes, 6 Diamond Drilling (DDH), and 3 RC drillholes with Diamond Tails.</p> <p>85% of all drill holes contributing to the resource estimation were drilled by HRZ Minerals (HRZ, previously Intermin Resources - IRC) from 2009 to 2020.</p> <p>Historical drilling (pre 2000) was excluded from the resource due to concerns over the quality of the data. Orientation RAB and AC drilling has been excluded from the estimation.</p> <p>Soil sampling has been used across the deposit to assist targeting drilling.</p>

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Criteria	JORC Code explanation	Commentary
	<p>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</p>	<p>For RC drilling regular air and manual cleaning of the cyclone was undertaken to remove hung up sample where present.</p> <p>Duplicate field samples were submitted from the RC drilling to monitor sampling. Commercial standards were submitted with all samples sent for analysis to monitor laboratory accuracy.</p> <p>Standards, duplicates, and replicate samples are used by the laboratory to monitor their equipment performance.</p> <p>Analysis of the QAQC data showed acceptable precision and accuracy, with no observable bias.</p> <p>Historical drilling included resampling which concluded the samples were “precise and reliable”.</p>
	<p>Aspects of the determination of mineralisation that are Material to the Public Report. In cases where ‘industry standard’ work has been done this would be relatively simple (e.g. ‘reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay’). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</p>	<p>Historical drilling was managed by qualified geologists. 1 m RC samples were taken and a 5 m composite generated from spear samples. Composite samples returning 100+ ppb Au had the 1 m samples assayed. Diamond core was assayed using half core 1 m intervals in geologically prospective zones and v-cut 4 m composite intervals for the remaining core.</p> <p>HRZ/IRC drilling and sampling was undertaken by qualified company geologists under the supervision of the exploration manager. RC was used to obtain 1 m samples from which approximately 1.5 kg – 2 kg was submitted to the laboratory. Half core was sampled nominally over 1 m intervals adjusted for geological boundaries. All samples were pulverised to produce a 50 g charge for fire assay. Samples were assayed for Au only</p>

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Criteria	JORC Code explanation	Commentary
		<p>RC chips were geologically logged over 1 m intervals. Drilling intersected oxide, transitional and primary ore to a maximum downhole depth of 270 m at Jacques and 258 m at Peyes.</p>
<p>Drilling Techniques</p>	<p>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).</p>	<p>Historical drilling was undertaken with Schramm rig (“Reverse Circulation Percussion”).</p> <p>HRZ RC drilling was undertaken with a 4.5 inch face sampling hammer bit. A variety of drilling companies have been used.</p> <p>Delta Gold used Monodrill to drill NQ2 Diamond drill holes. IRC/HRZ typically used HQ3 sized diamond drill holes.</p>
<p>Drill sample recovery</p>	<p>Method of recording and assessing core and chip sample recoveries and results assessed.</p>	<p>RC recovery and metreage was assessed by comparing drill chip volumes (sample bags) 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.</p> <p>Under normal drilling conditions HRZ believes a good, representative sample is being obtained.</p> <p>No sampling issues were reported for the drilling.</p>
	<p>Measures taken to maximise sample recovery and ensure representative nature of the samples.</p>	<p>RC holes were kept as dry as possible to minimise contamination and maximise recovery.</p>

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Criteria	JORC Code explanation	Commentary
	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.	No sample bias has been identified to date.
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.	RC drill chips are logged at 1 m intervals. Drill core is logged by geological interval. Logging is done on standard logging forms and transferred to a digital database once back at the office. Drill core was geotechnically logged.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Geological logging was qualitative in nature.
	The total length and percentage of the relevant intersections logged.	All RC chip samples and all DDH core intervals were logged.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	Historically 5 m and recently 4 m composites of 1m RC samples were taken. 1 m samples were taken from mineralised zones. Sawn diamond half core was sampled at a nominal 1 m downhole interval adjusted for geological intervals if required. Delta V-cut non-prospective zones and sampled these over 4 m composite intervals.

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Criteria	JORC Code explanation	Commentary
	<p>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</p>	<p>RC samples were collected from the drill rig by spearing each 1 m collection bag and compiling a 5 m or 4 m composite sample.</p> <p>5 m composites returning >100 ppb Au had the 1 m samples assayed.</p> <p>4 m composites returning >0.2 ppm Au had the 1 m samples assayed.</p> <p>The RC samples collected were all predominantly dry. Exceptions were recorded on logs.</p>
	<p>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</p>	<p>HRZ considers the RC and DDH sampling and sample preparation appropriate for the type of mineralisation being investigated.</p>
	<p>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</p>	<p>Duplicate samples were collected on average every 25 samples and 1 standard submitted every 50 samples by Delta Gold. Samples were fire assayed by Genalysis.</p> <p>For HRZ samples, no duplicate 4 m composites were taken in the field. 1 m duplicate samples were submitted at a nominal ratio of 1:20.</p> <p>4 m and 1m samples were analysed by SGS Mineral Services in Kalgoorlie.</p> <p>Samples were consistent and weighed approximately 1.5 - 2.0 kg.</p>
	<p>Measures taken to ensure that the sampling is representative of the in situ material collected,</p>	<p>Field duplicates were routinely taken to monitor laboratory sample preparation precision. HRZ intermittently resubmits samples to a referee laboratory and CRMs are submitted with all samples to monitor laboratory accuracy.</p>

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Criteria	JORC Code explanation	Commentary
	<p>including for instance results for field duplicate/second-half sampling.</p> <hr/> <p>Whether sample sizes are appropriate to the grain size of the material being sampled.</p>	<p>Once samples arrived in Kalgoorlie or Perth, further work including replicates and QC was undertaken by the laboratory. Grind size is routinely recorded and monitored.</p> <hr/> <p>Mineralisation is located in weathered and fresh felsic volcanics and porphyry. The sample size is standard practice in the WA Goldfields and is considered to provide good representivity in this type of material.</p>
<p>Quality of assay data and laboratory tests</p>	<p>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</p> <hr/> <p>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make</p>	<p>AAL, ALS, Auram and Jinnings were used for Historical sample assay. Delta samples were fire assayed by Genalysis.</p> <p>IRC/HRZ 4 m and 1m samples were analysed by SGS Mineral Services in Kalgoorlie. Some more recent samples were assayed by Jinnings in Kalgoorlie.</p> <p>No geophysical assay tools were used.</p> <p>Laboratory QA/QC involves the use of internal lab standards using certified reference material, blanks, splits and replicates as part of the in-house procedures. QC results (blanks, duplicates, standards) were in line with commercial procedures, reproducibility and accuracy.</p> <p>These techniques are considered appropriate for this type of mineralisation and produce a near total metal content result.</p> <hr/> <p>No geophysical or alternate assay tools were used at Jacques or Peyes.</p>

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Criteria	JORC Code explanation	Commentary
	<p>and model, reading times, calibrations factors applied and their derivation, etc.</p> <hr/> <p>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.</p>	<p>HRZ routinely use field duplicate, CRMs and blank samples in the QA process.</p> <p>The laboratory uses internal lab standards and replicate samples as part of their QA/QC.</p> <p>QC analysis indicated no bias and accurate results.</p>
<p>Verification of sampling and assaying</p>	<p>The verification of significant intersections by either independent or alternative company personnel.</p> <hr/> <p>The use of twinned holes.</p> <hr/> <p>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</p>	<p>Analytical work was supervised by senior laboratory staff experienced in metals assaying. QC data reports confirming the sample quality are supplied by the laboratory.</p> <p>No independent sampling has been undertaken to date.</p> <hr/> <p>No twin holes were intentionally drilled.</p> <hr/> <p>For recent drilling original Analysis Data is stored digitally as PDF and XLS files on the HRZ servers in Perth and Kalgoorlie. Drill hole logs are stored as XLS files on a per hole basis and compiled by project into an Access database.</p> <p>Historical drilling is maintained in a digital database. The data has been validated against historical records (WAMEX, hardcopy) where available.</p>

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Criteria	JORC Code explanation	Commentary
		File servers are routinely backed up off site.
	Discuss any adjustment to assay data.	No data were adjusted.
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	<p>All drill collar locations were initially pegged and surveyed using a hand-held Garmin GPS, accurate to ± 3 m to 5 m. The holes are normally accurately surveyed using a RTK-DGPS system at a later date (± 10 mm). The topography is relatively flat at the location of the drilling.</p> <p>Historical drill holes have down hole survey variously based on collar readings, electronic single or multishot instruments.</p> <p>Recent down hole surveys were taken using a north seeking gyro.</p> <p>Historical drilling is reported as having been surveyed, mostly on a local grid.</p>
	Specification of the grid system used.	<p>All reported coordinates are referenced to a Grid MGA94 Zone 51.</p> <p>Local coordinates have been transformed to MGA.</p>

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Criteria	JORC Code explanation	Commentary
	Quality and adequacy of topographic control.	A high-resolution drone survey was flown in 2017. This has been reduced to a 3 m resolution digital terrain model.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Drilling is regularly spaced across the mineralisation on a nominal 20 m spacing.
	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.	<p>The hole spacing was determined by HRZ to be sufficient to define the mineralisation.</p> <p>Data density is appropriate for the resource estimation and classification applied.</p>
	Whether sample compositing has been applied.	Preliminary RC sampling is done on 4 m composites. For any composite returning Au grade above a threshold, the individual 1 m intervals are assayed and reported. Composite samples are not used in the resource estimation.
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	<p>The drilling orientation intersects the oxide and primary mineralisation/structures at high angles providing representative intersections.</p> <p>The relationship between the drilling orientation and the orientation of mineralised structures is not considered to have introduced a sampling bias.</p>
	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.	The relationship between the drilling orientation and the orientation of mineralised structures has not introduced any identified sampling bias.

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Criteria	JORC Code explanation	Commentary
The measures taken to ensure sample security	The measures taken to ensure sample security.	<p>All samples were collected on site under the supervision of the responsible geologist.</p> <p>For IRC/HRZ drilling collected samples were bagged and transported by company personnel to Kalgoorlie for analysis. Dispatch and consignment notes were delivered and checked for discrepancies.</p>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No Audits have been commissioned. Sample practices are monitored by senior HRZ geologists.

Section 2 Reporting of Exploration Results

(Criteria listed in section 1 also apply to this section.)

Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	<p>Peyes Farm is predominantly within tenement M26/346. Jacques Find is predominantly within tenement M26/621. Both extend a small distance into M26/549.</p> <p>All tenements are held by Black Mountain Gold Ltd, a fully owned subsidiary of Horizon Minerals Limited. No third-party JV partners are involved.</p>
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	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.	The tenements are in good standing and no known impediments exist.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<p>Previous work in the area has been undertaken by</p> <ul style="list-style-type: none"> • The Australian Emerald Company (EMR) • Delta / Delta Gold (DGD) • Intermin Resources (IRC) • Placer Dome Asia Pacific (PDG) • Viking Resources Limited (VKA)
Geology	Deposit type, geological setting and style of mineralisation.	The Jacques and Peyes deposits are hosted in an Archaean felsic volcanic/porphyry. Mineralisation occurs in the oxide supergene and transitional zones as gold with quartz, minor vein quartz, and shear hosted with varying amounts of sulphide mineralisation.
Drill hole Information	<p>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:</p> <ul style="list-style-type: none"> • easting and northing of the drill hole collar • elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar • dip and azimuth of the hole • down hole length and interception depth 	Selected drill hole details are included in the main body of text. Exploration results are not specifically being reported.

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- hole length.

If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.

No information has been intentionally excluded.

Data aggregation methods

In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.

No weighting or averaging calculations were made.

Only Gold (Au) is being reported. No metal equivalent calculations were applied

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.

No aggregate intercepts are being reported.

The assumptions used for any reporting of metal equivalent values should be clearly stated.

No metal equivalent calculations were applied.

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<p>Relationship between mineralisation widths and intercept lengths</p>	<p>These relationships are particularly important in the reporting of Exploration Results.</p> <p>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</p> <p>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').</p>	<p>With RC drilling, the minimum width, and assay, is 1 m. Drill intercepts and true widths appear, within reason, to be close to each other allowing for the minimum intercept width of 1 m. HRZ estimates that the true width is variable but probably 80% to 100% of most intercept widths.</p>
<p>Diagrams</p>	<p>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</p>	<p>Included in the main text where applicable.</p>
<p>Balanced reporting</p>	<p>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.</p>	<p>Exploration results are not being specifically reported. Selected intersections are noted to indicate the tenor of the deposit.</p>
<p>Other substantive exploration data</p>	<p>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;</p>	<p>Exploration results are not being specifically reported.</p>

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	bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	
Further work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).	Pit optimisation studies will be undertaken to quantify the economic viability of the Jacques and Peyes deposits.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Commercially sensitive.

Section 3 Estimation and Reporting of Mineral Resources

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

Criteria	JORC Code explanation	Commentary
Database integrity	Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.	<p>The integrity and security of the drill hole database was preserved by the Company by only allowing access to the persons authorized to handle the data and by ensuring that all original data is kept securely on site. Secure backups are stored offsite.</p> <p>HRZ data is checked and validated by the Project Geologist prior to uploading to the current MS Access Database.</p> <p>At the preliminary data entry stage, the database is checked against the raw logs.</p>

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Criteria	JORC Code explanation	Commentary
	<p>Data validation procedures used.</p>	<p>Historical data has been checked against available reports (internal, WAMEX). All data was checked visually in 3D to ensure that hole locations and surveys were correct.</p>
<p>Site visits</p>	<p>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</p> <p>If no site visits have been undertaken indicate why this is the case.</p>	<p>The Competent Person (Mr Mark Drabble) did not visit the Jacques Peyes prospects as only drill collars are visible and there is no significant outcrop. Drill core and RC chip tray photos were reviewed as part of the analysis and interpretation. Mr Drabble has significant experience in eastern Goldfields orogenic gold deposits and considers the datasets to be representative of this style of mineralisation.</p>
<p>Geological interpretation</p>	<p>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</p> <p>Nature of the data used and of any assumptions made.</p> <p>The effect, if any, of alternative interpretations on Mineral Resource estimation.</p>	<p>The framework of the deposits is based on field mapping of the host units by Delta Gold which has been interpreted into a 3D model of the lithology and mineralisation domains using the logged lithology and drillhole assays. The high density of RC drilling throughout the deposit has supported the development of a robust geological model. Geological continuity is demonstrated by the relationship of lithology in controlling the vein formation. Structural controls are reflected in the flexures of the lithological units and resultant development of en-echelon dilatant vein arrays.</p> <p>Data is stored in Access databases. Data is verified using Datashed, Micromine and Leapfrog.</p> <p>Alternative interpretations for the deposit include the prior reported MREs in 2018 which were estimates of a broad shear zone that were wireframe domains based on numeric cut-off grades only and did not account for the geological framework. The 2018 interpretation and estimation were not considered representative of the volume of these deposits.</p>

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Criteria	JORC Code explanation	Commentary
	<p>The use of geology in guiding and controlling Mineral Resource estimation.</p>	<p>Geological observations in logging were used to guide the interpretation and further control the trends of the Mineral Resource estimate. The black shales and felsic intrusive units were used as controls for dip and local orientation of the mineralised zones.</p>
<p>Dimensions</p>	<p>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</p>	<p>The Jacques Mineral Resource has an approximate strike length of 1000m and width of 85m (fresh mineralisation). The Peyes Mineral Resource has an approximate strike length of 600m and width of 50m (fresh mineralisation). The full block model extends down to 150 mRL (200 mBGL). The plan width of mineralised zones ranges from 1m to 10m for the fresh lodes. The section width of the oxide lodes range from 1m to 10m thick.</p>
<p>Estimation and modelling techniques</p>	<p>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.</p>	<p>Software used:</p> <ul style="list-style-type: none"> • Leapfrog Geo 3D – wireframe modelling of geology and mineralised domains. • Snowden Supervisor - geostatistics, variography, quantitative kriging neighbourhood analysis (KNA) and block model validation. • Datamine Studio RM - drill hole validation, compositing, block modelling, estimation, classification and reporting. <p>Mineralisation is domained into 18 steep fresh domains at Jacques and 11 steep fresh domains at Peyes. The flat lying oxide zone was domained into 6 domains at Jacques and 4 domains at Peyes. All domains were coded into a single block model.</p> <p>Grades were composited to 1 m downhole constrained within the mineralised domains.</p> <p>Treatment of extreme grade values – high grade results within the deposit were capped by analysing histograms, log histograms, log probability plots and spatial analysis of individual high grades. Top-cuts was undertaken on 8 domains and varied between 5 g/t and 30 g/t. gold. Top cuts were applied to composites prior to estimation.</p> <p>Domains were grouped into areas for variography and validation studies: “Jacques fresh”, “Jacques oxide”, “Peyes fresh” and “Peyes oxide”. Variography was completed using Supervisor V8 software on the 1 m composites to determine mineralisation</p>

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Criteria	JORC Code explanation	Commentary
	<p>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</p> <p>The assumptions made regarding recovery of by-</p>	<p>continuity within the identified grouped domains. A combination of traditional spherical and median indicator transformed experimental variograms were used. The variance parameters defined using normal scores were back-transformed prior to estimation</p> <p>Variography across all domain groups demonstrated only short range continuity up to 39 m in the oxide zone and 32 m in the fresh zones, which is consistent with the modelled geology of a short-scale shear echelon vein package. The nugget was in the order of 40%, and no plunge could be determined.</p> <p>The block model was set up with no rotation and built to cover both the Jacques and Peyes deposits as a single model so allow for a consistent open pit optimisation. Lodes were estimated into a parent block of 4m (Y) x 10m (X) x 4m (Z) with sub celling to 0.5m (X) by 2.5m (Y) by 0.5m (Z).</p> <p>Estimation was by ordinary kriging into each of the domains individually. The search ellipse for the mineralised domains were aligned to the mineralised trend of each domain using dynamic anisotropy (DA) following reference planes generated in Leapfrog for each domain.</p> <p>Search neighbourhood was determined by KNA and variography. Three search passes were utilised: the first set to the range of the variogram using a minimum of 8 and a maximum of 22 to 26 samples. The second search pass was expanded by a factor of 2 using a reduced minimum of 6 and a maximum of 28 samples. The third and final search was increased by a factor of 3, again using a minimum number of 4 and maximum of 28 to 32 samples. Only one search pass was applied to the low-grade domains to keep the estimate localised. The Jacques fresh domains were constrained to a maximum number of 6 samples per drill hole.</p> <p>Previous recent estimates have been carried out by Hawker Geological Services Pty Ltd (HGS) in September 2018. Comparisons to these models are not definitive due to the markedly different domain interpretation based on grade only. It is considered the comparisons are useful at a global level, as significant changes to the local interpretations have occurred in the 2021 MRE due to infill drilling. No production has been undertaken on the deposits.</p>

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Criteria	JORC Code explanation	Commentary
	<p>products.</p> <p>Estimation of deleterious elements or other non-grade variables of economic significance (e.g., sulphur for acid mine drainage characterisation). In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</p> <p>Any assumptions behind modelling of selective mining units.</p> <p>Any assumptions about correlation between variables.</p> <p>Description of how the geological interpretation was used to control the resource estimates.</p> <p>Discussion of basis for using or not using grade cutting or capping.</p>	<p>No by-product recovery has been assumed.</p> <p>No other elements were estimated.</p> <p>The parent block size of 4m (Y) x 10m (X) x 4m (Z) with sub celling to 0.5m (X) by 2.5m (Y) by 0.5m (Z) This is based upon an average drillhole spacing of 12.5 m x 15 m and is a compromise between drillhole spacing and volumetric domain representation.</p> <p>The domain interpretation of the Jacques Peyes deposit is consistent with a Kalgoorlie style shear vein hosted deposit and the domain selectivity implied by the MRE model is considered to be appropriate for a vein style gold deposit being exploited by an open pit method.</p> <p>No correlated variables have been investigated or estimated.</p> <p>The geological interpretation was used at all stages to control the estimation. It was used to guide the orientation and shape of the mineralised domains. These were then used as boundaries for the grade estimation, using the trend of the mineralisation to control the search ellipse direction and the major controls on the distribution of grade.</p> <p>Top-cuts were used in the estimate to control the over-influence of high grades outliers. Top-cuts, where appropriate, were applied on an individual domain basis for eight domains and top-cut from one to three samples, thereby reducing the correlation coefficient to ensure that the ordinary kriging estimation algorithm is robust.</p>

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Criteria	JORC Code explanation	Commentary
	The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available.	Validation checks of the estimate occurred by way of global and local statistical comparison, comparison of volume of wireframe verses the volume of the block model, comparison of the model average grade (and general statistics) and the declustered sample grade by domain, swath plots by northing, easting and elevation, visual check of drill data vs model data, comparison of global statistics for check estimates.
Moisture	The basis of the adopted cut-off grade(s) or quality parameters applied	The tonnage was estimated on a dry basis.
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied	A nominal lower cut-off grade of 0.3g/t to 0.4 g/t gold was utilised for interpreting geological continuity of the mineralisation. For reporting, the cut-off grades applied to the estimate were 0.5g/t gold reporting. A 0.5g/t gold cut-off grade is generally considered to be the lower limit of economic extraction in an open pit.
Mining factors or assumptions	Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	No assumptions have been made on possible mining methods apart from the suitability of the mineralisation for open pit mining. HRZ intends to carry out pit optimisations on the Mineral Resource block models.

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Criteria	JORC Code explanation	Commentary
<p>Metallurgical factors or assumptions</p>	<p>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.</p>	<p>Metallurgical results show gold recoveries of 89.4% and 69.9% for the Jacques Find and Peyes Farm oxide-transitional composites respectively with further test work underway</p> <p>Mining focus is on the oxide/supergene material. Material at depth is 'semi refractory' and will require a different process route.</p>
<p>Environmental factors or assumptions</p>	<p>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</p>	<p>The Jacques Peyes project is located in a mature gold mining district, with mining in the area occurring over the past 100 years.</p> <p>The current assumption of waste rock being of no environmental significance is based on local experience in numerous greenschist facies gold deposits which contain significant carbonate mineralogy as part of the mineralisation and waste rock. The mineralisation is a low sulphidation type with limited acid forming potential.</p> <p>It is assumed that surface waste dumps will be used to store waste material and conventional storage facilities will be used for the process plant tailings.</p>

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Criteria	JORC Code explanation	Commentary
<p>Bulk density</p>	<p>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.</p> <p>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit,</p> <p>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</p>	<p>Bulk density was assigned to the block model based on material type. The assumed density values were derived from the previous MRE. The assigned bulk density values are consistent with similar deposits in the Kalgoorlie region.</p> <p>A small subset of experimental data (35 samples) of specific gravity determinations confirms that the assumed bulk density is similar to the test work results.</p> <p>The method for the bulk density measurements was by the dry weight/wet weight (Archimedes method) on both mineralised and waste rock.</p>
<p>Classification</p>	<p>The basis for the classification of the Mineral Resources into varying confidence categories</p>	<p>The Mineral Resource has not been constrained by a pit shell but the depth of the block model is considered by HRZ to be the maximum potential open pit depth of these deposits.</p> <p>Blocks have been classified as Indicated Mineral Resource, Inferred Mineral Resource or “Unclassified” based on drill hole spacing, geological continuity and estimation quality parameters. There is no Measured Mineral Resource classification.</p> <p>Indicated Mineral Resource is supported by exploration drilling with nominal 15m x 25m spacing, supported by 15 to over 20 samples. Geological continuity is demonstrated by the geological and structural interpretations that constrain the mineralisation, and vein studies of orientations in diamond holes.</p> <p>Inferred Mineral Resource was defined where there was a low to moderate level of geological confidence in geometry, there was still continuity of grade and drill spacing</p>

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Criteria	JORC Code explanation	Commentary
	<p>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).</p> <p>Whether the result appropriately reflects the Competent Person’s view of the deposit.</p>	<p>was greater than 25m. It is supported by less than 15 samples in the estimate.</p> <p>Geological support was defined to a lower level of confidence in terms of continuity and extent.</p> <p>Unclassified mineralisation has not been included in this Mineral Resource and is the material that has no estimated grades and is unsupported by geology and drilling.</p> <p>Grade reliability, volume uncertainty and assay uncertainty have all been considered in the assignment of Mineral Resource categories. Consideration has been given to all relevant factors in the classification of the Mineral Resource.</p> <p>The classification reflects the Competent Person’s view of the deposit.</p>
<p>Audits or reviews</p>	<p>The results of any audits or reviews of Mineral Resource estimates.</p> <p>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</p>	<p>No external audits have been conducted on the Mineral Resource estimate.</p> <p>With further drilling it is expected that there will be variances to the tonnage, grade and metal of the deposit. The Competent Person expects that these variances will not impact on the economic extraction of the deposit. One of the main issues is continuity and thickness variations, and these will continue to be a key focus of definition as the deposit is exploited, and locally there will be variable outcomes as grade control progresses. Optiro considers the Mineral Resource categories to be appropriate with respect to these risks.</p>

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	<p>Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate</p> <p>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</p> <p>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available</p>	<p>It is the Competent Person's view that this Mineral Resource estimate is appropriate to the type of deposit. The Eastern Goldfields vein hosted style of mineralisation is well understood and has a substantial mining history to underpin the decisions made in preparing this MRE.</p> <p>The Mineral Resource classification is appropriate at the global scale.</p>