**24 November 2020** 



# STEP OUT DRILLING AT THE CRAKE GOLD PROJECT INTERCEPTS 28m at 3.37g/t Au from 32m

#### **HIGHLIGHTS**

- Phase 2 resource extension drilling completed at the 100% owned Crake gold project, part of the Binduli project area, 9km west of Kalgoorlie in the Western Australian goldfields
- Drilling comprised 10 step-out holes for 804m to a maximum depth of 132m following up new mineralisation discovered to the north-west in Phase 1 drilling targeting areas outside the current resource envelope
- The current Mineral Resource Estimate for Crake stands at 1.27Mt @ 1.82g/t Au for 73,820oz at a 1g/t Au lower grade cut-off and remains open to the north and west 1
- New shallow high grade intercepts received include <sup>2</sup>:
  - o 28m @ 3.37g/t Au from 32m including 4m @ 12.40g/t Au from 36m (BRC20028)
  - 8m @ 1.85g/t Au from 56m (BRC20026)
  - 16m @ 1.43g/t Au from 56m and 4m @ 1.27g/t Au from 92m (BRC20025)
- Results confirm the emergence of new, high grade mineralisation in an area with limited drilling which remains open and striking toward the northern extension of the new Coote prospect 700m to the west
- Structural diamond drilling to 100m depth also completed at Crake for reserve conversion and further metallurgical test work with assays received from one hole returning:
  - 19.3m @ 2.09g/t Au from 68m (BCD20005)<sup>2</sup>
- Phase 3 drilling is now underway with results expected early in the March quarter 2021 3
- Mine optimisation and design work for reserve generation has commenced as part of the consolidated Feasibility Study due for completion in the June Quarter 2021

Commenting on the latest drilling results, Horizon Minerals Managing Director Mr Jon Price said:

"These further excellent drilling results continue to demonstrate the potential scale and quality of Crake and the entire Binduli project area and we are just getting started."

"The more we drill, the more we find which gives us great confidence with a 70,000m drill program for FY21 well underway. Further drilling results will continue to be generated as we work towards updated resource estimates and mine design work to feed into the consolidated Feasibility Study."

<sup>&</sup>lt;sup>1</sup> As announced to the ASX on 10 December 2019, see also Table and Confirmations on Page 8.<sup>2</sup> Denotes 4m composites, see Table 1 on Page 7, Competent Persons Statements on Page 7 and JORC Tables on Pages 11-19. <sup>3</sup> See Cautionary and Forward Looking Statements on Page 10.



#### Overview

Horizon Minerals Limited (ASX: HRZ) ("Horizon" or the "Company") is pleased to announce further excellent drilling results from Crake, part of the 100% owned Binduli gold project area located 9km west of Kalgoorlie-Boulder in the heart of the Western Australian goldfields (Figure 1).

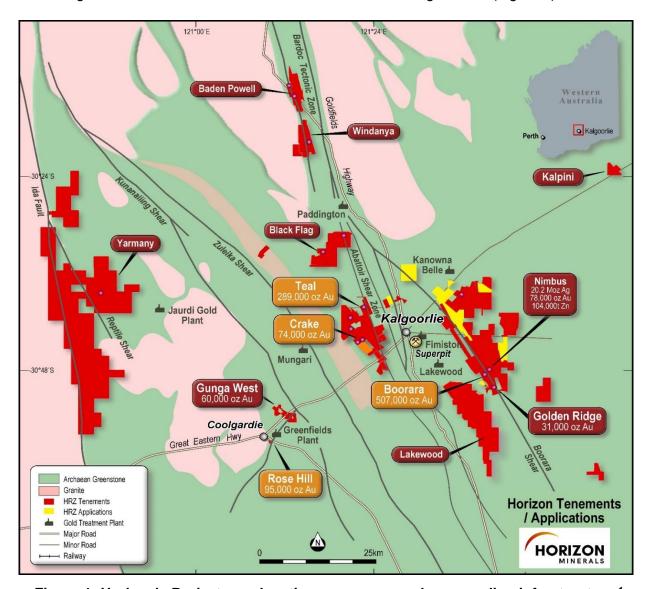


Figure 1: Horizon's Project area location, resources and surrounding infrastructure 1

Crake is one of four core satellite gold projects being advanced to complement the baseload Boorara gold project as part of the consolidated Feasibility Study to deliver an initial five year mine plan and underpin the establishment of a stand-alone processing facility at the Boorara mine site. <sup>1</sup>

Trial mining at Boorara is complete and toll milling campaigns will continue to generate revenue through to January 2021. Drilling is continuing in parallel across multiple projects with the aim of updating resource estimates for all core projects (Boorara, Binduli, Teal, Rose Hill and Kalpini) in the December 2020 and March 2021 quarters enabling reserve generation in the June Quarter 2021.

<sup>&</sup>lt;sup>1</sup> see Cautionary and Forward Looking Statement on Page 10.



In 2018, the Company commenced drilling at the historic Crake prospect where previous work had intersected encouraging gold mineralisation within a porphyry host rock. The initial drilling totalled 85 RC holes for 8,096m, and defined an initial Mineral Resource Estimate ("MRE") of 1.12Mt @ 1.59g/t Au for 57,700oz at a 1g/t lower grade cut-off <sup>1</sup>.

Follow up drilling in 2019 comprising 42 holes for 3,102m delivered excellent high grade extensional and infill results increasing the strike length to over 450m and enabling an updated MRE to be compiled which totalled 1.27Mt grading 1.82g/t Au for 73,820oz at a 1g/t Au lower grade cut-off.<sup>2</sup>

In September 2020, further reserve conversion and resource growth drilling was completed with 29 RC holes for 2,460m to a maximum depth of 144m at the Crake and Coote prospects. Five HQ3 diamond holes including three geotechnical and two structural/metallurgical holes for approximately 520m were also completed at Crake. A follow up, Phase 2 program of 10 holes for 804m was completed in November 2020 upon receipt of encouraging high grade, shallow intercepts from the Phase 1 program.

#### **Project Geology**

The geology at Crake is similar to the 390,000oz Janet Ivy open pit, located approximately 1,500m to the south, where the gold is hosted in a structurally controlled feldspar porphyry. At the nearby Fort William and Fort Scott open pits, where over 100,000oz have been produced to date, gold is hosted within sheared units of volcanics and clastic sediments.

At Crake, the gold mineralisation strikes NW and dips shallowly to the SW. The gold lodes are typically found in weakly developed quartz stockworks and range from 5m to 20m thick. On occasions low grade mineralisation can blow out to >60m width. High grade shoots appear to result from intersecting structures. The Crake drilling has focussed on a mineralised, variably altered pink porphyry with minor amounts of pyrite and magnetite. Higher grades usually coincide with stronger quartz-pyrite mineralisation (up to 3% by volume).

#### Summary of Results 3

The Phase 2 drill program had two main objectives: to follow up the Phase 1 northwest extension discovered at Crake (8m @ 2.41g/t Au and 6m @ 3.20g/t Au in BRC20012) (Figure 4) and also to follow up the shallow high grade intercepts on the eastern edge of Crake (12m @ 6.68g/t Au in BRC20018). Most of the Phase 2 shallow holes returned lower grade mineralisation and have now closed off the eastern edge of Crake mineralisation.

Several holes were drilled north of BRC20014 (2m @ 2.17g/t Au from 46m, 2m @ 3.22g/t Au from 60m and 31m @ 1.81g/t Au from 71m including 3m @ 7.06g/t Au from 99m) and successfully encountered similar mineralisation in multiple holes.

The standout intercept of 28m @ 3.37g/t Au from 32m, including 4m @ 12.40g/t Au from 36m (BRC20028) was achieved in the northwest of the system (Figure 3). Step out drilling around this hole is planned for next month with diamond drilling to deliver a better understanding of the cross cutting structures responsible for the high-grade mineralisation and other significant results in the northwest area (Figure 2).

<sup>&</sup>lt;sup>1</sup> As announced to the ASX on 10 March 2019. <sup>2</sup> As announced to the ASX on 10 December 2019. <sup>3</sup> As announced to the ASX on 4 November 2020, see also Tables and Competent Persons Statement on Page 7 and JORC Tables on Pages 11-19.



The five diamond drill holes completed at Crake revealed new insights into the mineralisation. The footwall intermediate volcanic rock contained sub-rounded clasts of pink porphyry up to 20cm wide, a lithology more akin to a volcanic conglomerate. BCD20005 (19.3m @ 2.09g/t Au from 68m) was drilled adjacent to an historic RC hole IPC131 (20m @ 6.67g/t Au from 66m) and an earlier twin RC hole from Horizon BRC18043 (18m @ 3.13g/t Au from 70m) <sup>1</sup>. Similar mineralised widths in the three holes are noted. The grade variations are possibly due to coarse gold effects and more detailed analysis is planned for the upcoming Crake resource estimate.

One deep hole (BRC20033 to 132m) was collared about 150m west of Crake with a view to checking two slightly anomalous historic drill holes in the area between Coote and Crake. The objective of the hole was to establish a sterile area for a potential waste dump. BRC20033 contained no significant gold or sulphide mineralisation, but a thick unit of the prospective pink porphyry rock was logged.

Contour mapping based on Horizon's ultrafine (-2um) soil sampling on a 50m x 100-200m grid show multiple areas of elevated gold up to 90.1ppb Au (background gold <30ppb). There are few historical holes immediately north of Coote and Crake with most holes being too shallow to obtain meaningful data. Vertical depths previously drilled in the area are around 25m and likely to bottom out in a known depletion zone whereas mineralisation at Coote generally starts from about 30m depth. Further exploration work along strike (northwest) of Coote and Crake is now planned with first pass drilling commencing in 2021.

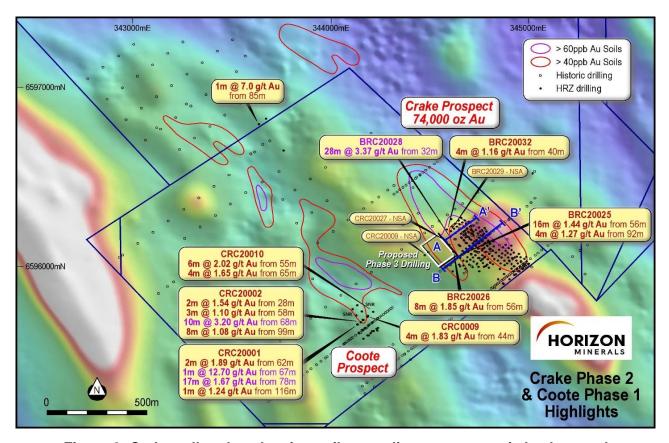


Figure 2: Crake collar plan showing soil anomalies over magnetic background

<sup>&</sup>lt;sup>1</sup> As announced to the ASX on 4 November 2020, see also Tables and Competent Persons Statement on Page 7 and JORC Tables on Pages 11-19.



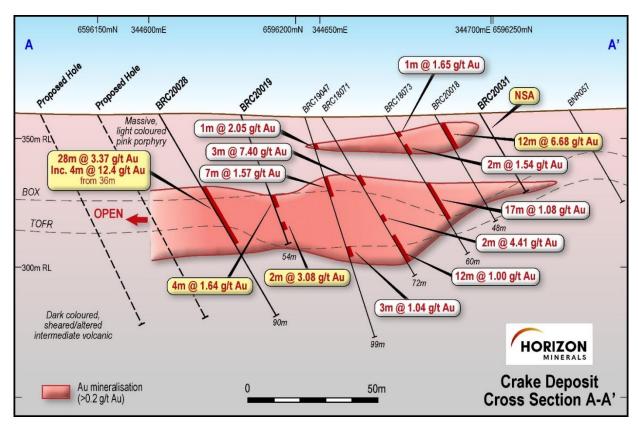


Figure 3: Crake cross section AA' highlights with proposed step back drilling

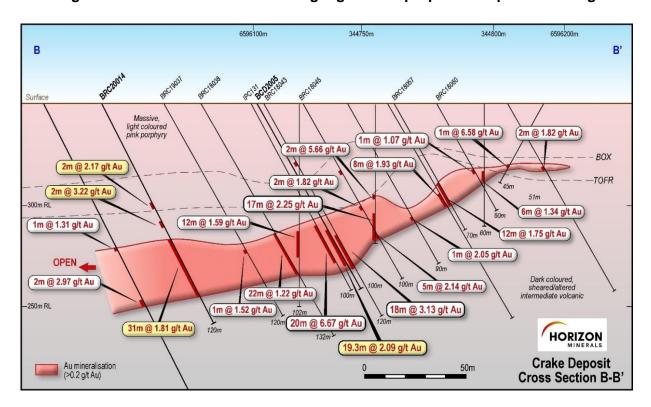


Figure 4: Crake cross section BB' showing location of BRC20014 and BCD2005



#### **Next Steps**

Phase 2 drilling at Coote is still being completed. Once finished, the rig will move back to Crake to start the final Phase 3 step out program which will mostly target the NW area.

All resource drilling data is also being incorporated into the geological models for compilation of an updated Mineral Resource Estimate for Crake and a maiden Mineral Resource Estimate for Coote.

Mine optimisation and design studies have commenced with a view to establishing Ore Reserves at Crake as part of the consolidated Feasibility Study.

Drilling with 3 rigs is currently ongoing at Binduli, Teal and Kalpini with further results expected in coming months.

#### **Authorised for release by the Board of Directors**

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Table 1: Binduli gold project 2020 preliminary significant downhole 4m composite RC intercepts >1.00g/t Au (Au g/t FA50 is a fire assay). True width intercepts are not known but estimated to be close (~75%) of the downhole width \*.

	East	North	Depth			From	То	Interval	Au
Hole Id	(m)	(m)	(m)	Dip	Azimuth	(m)	(m)	(m)	g/t (FA50)
Crake (>1.0 g/t)									
BRC20025	344636	6596059	132	-60	048	56	72	16	1.44
						92	96	4	1.27
BRC20026	344618	6596080	126	-60	048	56	64	8	1.85
BRC20028	344603	6596165	90	-60	048	32	60	28	3.37
					Inc	36	40	4	12.40
BRC20032	344585	6596204	90	-60	048	40	44	4	1.16
BDC20005**	344711	6596099	100	-60	048	68	87.3	19.3	2.09
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#### \* Competent Person Statement

Information in this announcement that relates to exploration results is based on information compiled by David O'Farrell who is the Exploration Manager of Horizon Minerals. Mr O'Farrell is a Member of The Australian Institute of Mining and Metallurgists (AusIMM) and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity that he is undertaking, to qualify as Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr O'Farrell consents to the inclusion in the document of the information in the form and context in which it appears.

See also JORC Tables on Pages 11-19.

<sup>\*\*</sup> Diamond hole logged, cut and assayed at 1m intervals



#### **Horizon Minerals Limited – Summary of Gold Mineral Resources**

Project	Cut-off		Measured	ı		Indicate	d		Inferred			Total Reso	ource
	Grade	Mt	Au (g/t)	Oz	Mt	Au (g/t)	Oz	Mt	Au (g/t)	Oz	Mt	Au (g/t)	Oz
Teal	1.0				1.01	1.96	63,681	0.80	2.50	64,458	1.81	2.20	128,000
Jacques Find	1.0				1.60	2.24	114,854	0.32	1.68	17,135	1.91	2.14	131,970
Peyes Farm					0.31	1.65	16,313	0.22	1.77	12,547	0.53	1.70	28,860
Crake	1.0	0.46	1.85	27,459	0.48	1.49	22,569	0.33	2.22	23,792	1.27	1.82	73,820
Rosehill	0.7				0.80	2.45	63,000	0.40	2.57	32,200	1.20	2.49	95,200
Gunga west	0.6				0.71	1.60	36,435	0.48	1.50	23,433	1.19	1.56	59,869
Golden Ridge	1.0				0.47	1.83	27,921	0.05	1.71	2,797	0.52	1.82	30,718
TOTAL		0.46	1.85	27,459	5.37	2.00	344,773	2.60	2.11	176,362	8.43	2.02	548,437

# Horizon Minerals Limited – Summary of Vanadium / Molybdenum Mineral Resources (at $0.29\%\ V_2O_5$ cut-off grade)

Catagomi	Tonnage	Grade	Grade	Notes
Category	(Mt)	% V <sub>2</sub> O <sub>5</sub>	g/t MoO <sub>3</sub>	Notes
Inferred (1)	1,764	0.31	253	(1) Rothbury
Inferred (2)	671	0.35	274	(2) Lilyvale
Inferred (3)	96	0.33	358	(3) Manfred
Inferred (4)	48	0.31	264	(4) Burwood (100% metal rights)
TOTAL	2,579	0.32	262	

#### Confirmation

The information in this report that relates to Horizon's Mineral Resources estimates or Ore Reserves estimates is extracted from and was originally reported in Horizon's ASX announcements "Intermin's Resources Grow to over 667,000 Ounces" dated 20 March 2018, "Crake Gold Project Continues to Grow" dated 10 December 2019, "High Grade Drill Results and Resource Update for the Rose Hill Gold Project" dated 4 February 2020 and "Richmond – Julia Creek Vanadium Project Resource Update" dated 16 June 2020, 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 or Ore Reserves estimates have not been materially modified from the original market announcements.



# 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)

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 cu

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 is 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.

# Appendix 1 - Binduli Gold Project

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

Mr David O'Farrell, Exploration Manager compiled the information in Section 1 and Section 2 of the following JORC Table 1 and is the Competent Person for those sections. 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 Horizon Minerals Ltd (2019) relating to the Binduli gold project areas.

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

Criteria	JORC Code explanation	Commentary
Sampling techniques		<ul> <li>4m composite samples taken with a 450mm x 50mm PVC spear being thrust to the bottom of the sample bag for RC drilling. 1m single splits taken using riffle splitter if 4m results above cut-off. Average sample weights about 1.5-2kg.</li> <li>Half diamond HQ diamond drill core was cut and one side submitted to SGS laboratories.</li> </ul>
		• For RC drilling regular air and manual cleaning of cyclone to remove hung up clays where present. Standards & replicate assays taken by the laboratory. Based on statistical analysis of these results, there is no evidence to suggest the samples are not representative.
	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	<ul> <li>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, initially sampled over 4m composite intervals and then specific anomalous intervals were sampled over 1m intervals. Depending on the final hole depth, the maximum composite interval was 4m and minimum was 1m. Samples assayed for Au only for this program. Drilling intersected oxide, transitional and primary ore at a maximum downhole depth of 270m. Assays were determined by Fire assay with checks routinely undertaken. Drilling of mainly oxide and primary felsic volcanogenic sediments with gold contained within sulphides and quartz.</li> </ul>





Criteria	JORC Code explanation	Commentary
	mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	
Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	<ul> <li>RC drilling with a 4' 1/2 inch face sampling hammer bit.</li> <li>Diamond drilling used triple tube to help core recovery.</li> </ul>
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.  Measures taken to maximise sample recovery and ensure representative nature of the samples.  Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	<ul> <li>RC recovery and meterage 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.</li> <li>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. At depth there were some wet samples and these were recorded on geological logs. Where significant samples were wet they were recorded.</li> <li>No sample bias has been identified to date.</li> <li>Good recoveries were noted in the Binduli diamond drill holes.</li> </ul>
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.	<ul> <li>Drill chip logging and core was completed on one metre or selected intervals at the rig by the geologist. The log was made to standard logging descriptive sheets, and transferred into Micromine software once back at the office.</li> <li>Logging was qualitative in nature.</li> <li>All intervals logged for RC drilling.</li> </ul>
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	



Criteria	JORC Code explanation	Commentary
	The total length and percentage of the relevant intersections logged.	
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.  If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.  For all sample types, the nature, quality and appropriateness of the sample preparation technique.  Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.  Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.  Whether sample sizes are appropriate to the grain size of the material being sampled.	<ul> <li>4m composite and 1m RC/DDH samples taken.</li> <li>RC samples were collected from the drill rig by spearing each 1m collection bag and compiling a 4m composite sample. Single splits were automatically taken by emptying the bulk sample bag into a riffle splitter. Samples collected in mineralisation were all dry except for some at depth and these were recorded on logs.</li> <li>For Horizon samples, no duplicate 4m composites were taken in the field. 4m and 1m samples were analysed by SGS Mineral Services in Kalgoorlie.</li> <li>Samples were consistent and weighed approximately 1.5-2.0 kg and it is common practice to review 1m results and then review sampling procedures to suit.</li> <li>Once samples arrived in Kalgoorlie, further work including duplicates and QC was undertaken at the laboratory. Horizon has determined that there is insufficient drill data density to inform an updated Mineral Resource Estimate with the current level of data.</li> <li>Mineralisation is located in weathered and fresh porphyry. The sample size is standard practice in the WA Goldfields to ensure representivity</li> </ul>
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.  For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the	<ul> <li>The 1m RC/DDH samples were assayed by Fire Assay (FA50) by SGS accredited Labs (Kalgoorlie) for gold only.</li> <li>No geophysical assay tools were used.</li> <li>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.</li> </ul>





Criteria	JORC Code explanation	Commentary
	analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.  The use of twinned holes.	<ul> <li>Work was supervised by senior SGS staff experienced in metals assaying. QC data reports confirming the sample quality are supplied.</li> <li>Data storage as PDF/XL files on company PC in Perth office.</li> <li>No data was adjusted.</li> </ul>
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.  Discuss any adjustment to assay data.	
	Discuss any adjustment to assay data.	
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	<ul> <li>All drill collar locations were initially pegged and surveyed using a hand held Garmin GPS, accurate to within 3-5m. The holes are normally accurately surveyed using a RTK-DGPS system at a later date. Holes were drilled on a regular spacing as per Table 1 collar details.</li> <li>All reported coordinates are referenced to a local grid. The topography is flat at the location</li> </ul>
	Specification of the grid system used.	of the drilling. Down hole surveys were taken.  • Grid MGA94 Zone 51.
	Quality and adequacy of topographic control.	• Topography is very flat, small differences in elevation between drill holes will have little effect on mineralisation widths on initial interpretation.





Criteria	JORC Code explanation	Commentary
Data spacing and distribution	Data spacing for reporting of Exploration Results.  Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.  Whether sample compositing has been applied.	<ul> <li>Holes were variably spaced and were consistent with industry standard resource style drilling in accordance with the collar details/coordinates supplied in Table 1.</li> <li>The hole spacing was determined by Horizon to be sufficient when combined with confirmed historic drilling results to define mineralisation in preparation for a JORC Compliant Resource Estimate.</li> </ul>
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.  If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	<ul> <li>No, drilling angle or vertical holes in cases is deemed to be appropriate to intersect the oxide and primary mineralisation and potential residual dipping structures. At Crake, all holes were angles and used to intersect the shallow dipping lodes. In this case the intercept width is very close (~75%) to the true width however, further drilling is required.</li> <li>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, it is the most common routine for delineating shallow gold resources in Australia.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>Samples were collected on site under supervision of the responsible geologist. The work site is on a destocked pastoral station. Visitors need permission to visit site. Once collected samples were bagged and transported to Kalgoorlie for analysis. Dispatch and consignment notes were delivered and checked for discrepancies.</li> </ul>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No Audits have been commissioned.



# **Section 2: Reporting of Exploration Results**

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.  The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	<ul> <li>Exploration E26/168 (MLA26/855). No third party JV partners involved.</li> <li>The tenements are in good standing and no known impediments exist.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Previous workers in the area include Evolution Mining, Horizon Minerals, Delta Gold, Barrick and Placer Dome Asia.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>Archaean porphyry. Oxide supergene and transitional gold with quartz, minor vein quartz, shear hosted with varying amounts of sulphide mineralisation.</li> </ul>
Drill hole Information	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:  • easting and northing of the drill hole collar • 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	• See Table 1.
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Criteria	JORC Code explanation	Commentary
	• hole length.  If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.  Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.  The assumptions used for any reporting of metal equivalent	<ul> <li>No weighting or averaging calculations were made, assays reported and compiled are as tabulated in Table 1.</li> <li>All assay intervals reported in Table 1 are 1m downhole intervals or as indicated.</li> <li>No metal equivalent calculations were applied.</li> </ul>
Relationship between mineralisatio n widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results.  If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	<ul> <li>Laterite, oxide mineralisation is generally flat lying (almost blanket like) while transitional and primary mineralisation at depth is generally steeply dipping 70-85 degrees often fault offset.</li> <li>Drill intercepts and true widths appear to be close to each other, or within reason allowing for the minimum intercept width of 1m. Horizon estimates that the true width is variable but probably around 80-100% of most intercept widths.</li> <li>Given the nature of RC drilling, the minimum width and assay is 1m. The true thickness of the downhole intercepts are not known however the downhole intercepts appear to represent very close to true width given the orientation of the drilling.</li> </ul>





Criteria	JORC Code explanation	Commentary
	If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	• See Figure 1-3.
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	• Summary results showing 1m assays >1.00 g/t Au are shown in Table 1.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	<ul> <li>No comprehensive metallurgical work has been completed on the Crake prospect.     However free gold has been panned from the RC chips.</li> <li>See details from previous ASX releases from Horizon Minerals Limited (ASX; IRC). These can be accessed via the internet.</li> </ul>
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).	<ul> <li>New resource calculations are planned once sufficient data is compiled, with pit or underground economic assessments to follow if warranted.</li> <li>Commercially sensitive.</li> </ul>





Criteria	JORC Code explanation	Commentary
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	