



**ASX Announcement**  
21 July 2020

## **Very High Grade Mineralisation Encountered in Pantoro's Maiden Drilling Campaign on Lake Cowan**

Pantoro Limited (**ASX:PNR**) (**Pantoro**) is pleased to advise an intersection of very high grade gold mineralisation from the Sailfish Prospect at Norseman.

### **Key Highlights**

- Drilling returned 8.1 m @ 67.29 g/t Au from 78.6 m down hole.
- The intersection included 0.7 m @ 521 g/t and 0.25 m @ 252g/t Au.
- 3.9 m of core loss within the intersection is assumed to be 0 g/t in calculation of the weighted average ore interval. In general the core loss was adjacent to the very high grade core intervals within the broader intersection.
- Other significant intercepts include 1.8 m @ 4.25 g/t Au, and 3.5 m @ 2.56g/t Au.
- Confirms historical intersection of 1.5 m @ 461.47 gt/Au, drilled by Western Mining in 1992.



HQ drill core from SFDD20\_005 at Sailfish showing abundant visible gold.

Commenting on the results, Managing Director Paul Cmrlec said:

"These results from our initial eight diamond drillhole program at the Sailfish prospect on Lake Cowan highlights the immense exploration potential of the project, and in particular the likely presence of further very high grade mineralisation that Norseman has been known for over many decades.

Our exploration programs in these areas are in their very early stages and it is too early to speculate what the results may mean in the context of the broader project. Our geology team at Norseman continues to work with our key consultants to better understand the geometry and geological setting within the immediate area ahead of additional drilling.

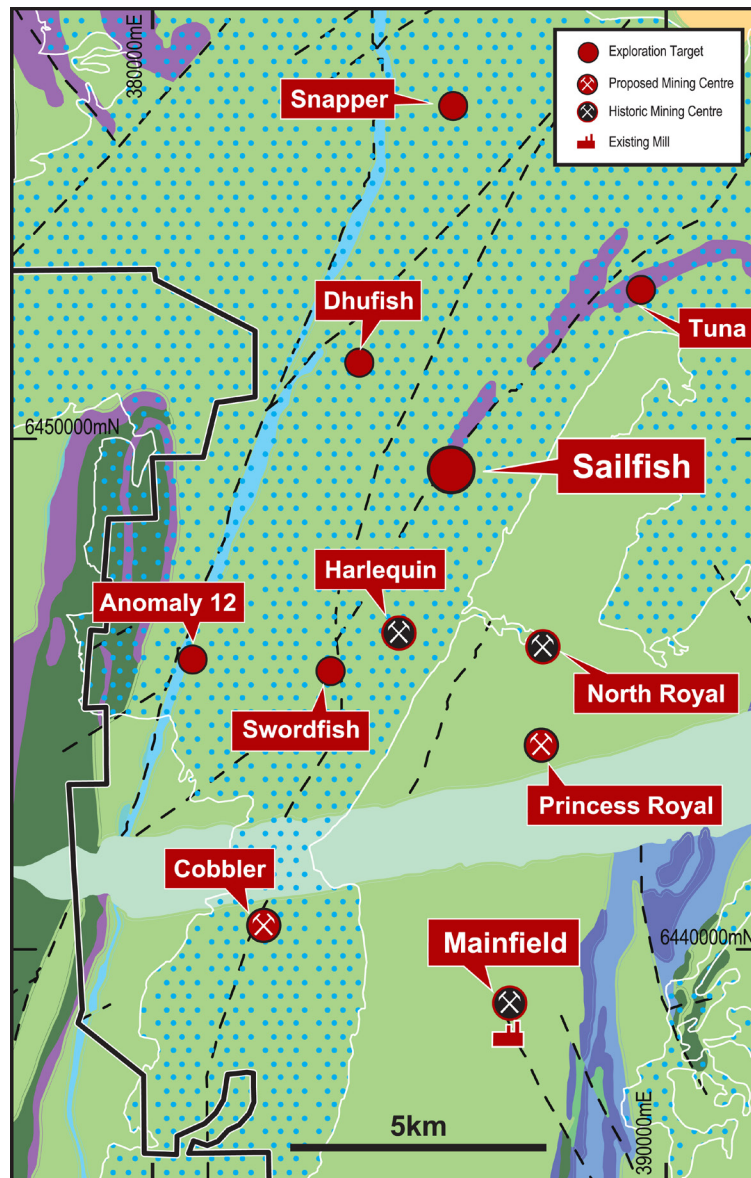
We are also working with our drilling contractors to increase the drillhole diameter in order to maximise core recovery in our future programs."

**Pantoro Limited**  
ABN 30 003 207 467

t: +61 8 6263 1110 | e: [admin@pantoro.com.au](mailto:admin@pantoro.com.au) | w: [www.pantoro.com.au](http://www.pantoro.com.au)  
PO Box 1353 West Perth WA 6872 | 1187 Hay Street, West Perth WA 6005

## Background

Pantoro has completed an initial eight hole diamond drill program on Lake Cowan. The initial program was undertaken following a period of extensive historical data review. The historical data was compiled from drilling programs completed by Western Mining in the early 1990's. As part of this review a number of historically drilled holes were re-logged with the assistance of Pantoro's structural geological consultant - Model Earth.



From this work a lithological and structural model was generated to help design a preliminary program of eight diamond holes at Sailfish aimed at gathering additional data to evaluate the next steps. Drilling was designed to test the lode system perpendicular to the interpreted orientation.

Drilling below the lake cover has been challenging with issues around core recovery, however a number of encouraging results including a bonanza intersection in Hole SFDD20\_005 drilled proximal to historic hole CWS2 have been returned. Significant results received to date include:

- 8.1 m @ 67.29 g/t Au from 78.6 m downhole inc. 0.7 m @ 521 g/t and 0.25 m @ 252 g/t Au ( including 3.9 m of core loss assigned 0 g/t Au grade).
- 3.5 m @ 2.56 g/t Au from 64 m downhole inc. 0.3 m @ 26.2 g/t Au ( including 1.6 m of core loss assigned at 0 g/t Au grade)
- 1.8 m @ 4.25 g/t Au inc 0.95 m @ 7.71 g/t Au from 171.45 m downhole

Of note is that core loss is often contiguous with the very high grade portions of the broader intersection. Some caution is required with respect to the quality of drill return in the broader intersection, however the sections of bonanza grade core confirm the insitu presence of very high grade mineralisation with abundant visible gold.

The initial short program completed by Pantoro has followed up on a previous reconnaissance program by Western Mining in the early 1990's which returned results including:

- CWS2 1.5 m @ 461.47 g/t Au inc. 1 m @ 690 g/t Au from 77 m downhole  
and 0.1 m @ 290 g/t Au from 100.75 m downhole
- CWS22 1.4 m @ 21.15 g/t Au from 137.4 m downhole
- CWS16 0.25 m @ 54 g/t Au from 96 m downhole  
and 1.35 m @ 8.73g/t Au from 114.65 m downhole

Western Mining did not commence drilling on Lake Cowan until 1990, when a dedicated lake capable air core rig began testing beneath tertiary sediments and recent mud.

These historic Western Mining programs were drilled on regional traverses at a spacing of 2 km by 400 m, with a small number of targets tested at a closer spacing. The more focussed programs were designed to test features defined by interpretation of magnetic data at the confluence of interpreted favourable stratigraphy and structure.

Sailfish was defined as part of this work along with the Harlequin and Cobbler deposits with wide spaced diamond drilling conducted at the time. Harlequin became a spectacular discovery in 1991 with mining ultimately producing approximately 800,000 ounces at 10 g/t Au.

Based on current drilling, Sailfish appears to be a shallow SE dipping lode system with orientations similar to the Harlequin mine to the South.

Mineralisation at Sailfish is hosted in both the hanging wall basalts, consistent with some of the multiple lodes at Harlequin, and also within the favourable Bluebird Gabbro – which hosts the 1.8 million ounce North Royal deposit which was probably the most prolific orebody mined at Norseman historically.

### **Ongoing Lake Work Program**

As part of the lake exploration work that Pantoro is undertaking, review and reprocessing of the extensive geophysical datasets is underway. This work is particularly focussed on the Gravity and Magnetic data in conjunction with the historic multi-element geochemical data.

Additional diamond drilling is also currently underway on another lake anomaly testing another high priority target. Similar to the maiden Sailfish program, the current program will further test an existing anomaly with encouraging historical reconnaissance results.

Due to the very high gold grades intersected in hole SFDD20\_005 (which has been screen fire assayed), screen fire assay test work will be completed on the lower grade intersections, and it is planned to undertake larger diameter PQ diamond core testing, in an effort to improve core recovery.

### **About the Norseman Gold Project (Pantoro 50%)**

Pantoro Limited announced the major acquisition of 50% of the Norseman Gold Project in May 2019 and completion occurred on 9 July 2019. Pantoro is the manager of the unincorporated joint venture, and is responsible for defining and implementing work programs, and the day to day management of the operation.

The Norseman Gold Project is located in the Eastern Goldfields of Western Australia, at the southern end of the highly productive Norseman-Wiluna greenstone belt. The project lies approximately 725 km east of Perth, 200 km south of Kalgoorlie, and 200 km north of Esperance.

The current Mineral Resource is 4.4 million ounces of gold (100% basis). Many of the Mineral Resources defined to date remain open along strike and at depth, and many of the Mineral Resources have only been tested to shallow depths. Mineral Resources have been estimated by Independent Expert HGS Australia Exploration Services. Pantoro is systematically drilling Mineral Resource areas and updating Mineral Resources and Ore Reserves as additional data becomes available. In addition, there are numerous anomalies and mineralisation occurrences which are yet to be tested adequately to be placed into Mineral Resources, with a number of highly prospective targets already identified by drilling.

The project comprises 146 near-contiguous mining tenements, most of which are pre-1994 Mining Leases which are free of native title. The tenure extends approximately 70 lineal kilometres of the highly prospective Norseman-Wiluna greenstone belt covering more than 1,000 square kilometres. Pantoro is focused on establishing a clear production development plan, and execution of that plan. The aim will be to establish an initial inventory of ~500,000 ounces to support a restart of operations.

Historically, the Norseman Gold Project areas have produced over 5.5 million ounces of gold since operations began in 1935, and is one of, if not the highest grade fields within the Yilgarn Craton. Pantoro is focused on establishing a clear production development plan, and has commenced drilling and other works required to convert Mineral Resources to Ore Reserves.

Pantoro has focused Mineral Resource definition drilling on six initial mining areas containing multiple deposits which are amenable to both open pit and underground mining.

The initial drill out of these first areas is nearing completion, Mineral Resource modelling is underway and due for completion in the September quarter.

The project is serviced by first class infrastructure at the project, local shire, and national infrastructure levels with MACA Interquip recently appointed to oversee the processing aspects of the feasibility study.

### **Enquiries**

Paul Cmrlec | Managing Director | Ph: +61 8 6263 1110 | Email: [admin@pantoro.com.au](mailto:admin@pantoro.com.au)

This announcement was authorised for release by Paul Cmrlec, Managing Director.

## Appendix 1 – Table of Drill Results

Hole Number	Northing	Easting	RL	Dip (degrees)	Azimuth (degrees)	End of Hole Depth (m)		Downhole From (m)	Downhole To (m)	Downhole Intersection (m)	Au gpt (uncut)
SFDD20_003	6449325	385862	262	-60	315	121.8		101.1	101.75	0.65	3.74
SFDD20_004	6449325	385916	262	-60	315	186		90.66	90.95	0.29	17.49
SFDD20_004								143.00	143.80	0.8	1.36
SFDD20_001A	6449381	385919	262	-60	315	200.9	inc. 1.6m core loss at 0/gt	64.00	67.50	3.50	2.56
SFDD20_001A							inc.	67.2	67.5	0.3	26.2
SFDD20_001A								171.45	173.25	1.8	4.25
SFDD20_001A							inc.	171.45	172.4	0.95	7.71
SFDD20_007	6449272	385850	262	-65	0	149.8		110.35	111.00	0.65	1.62
SFDD20_007								119.40	119.70	0.3	8.38
SFDD20_005	6449338	385894	262	-60	315	157.7	inc. 3.9m core loss at 0/gt	78.6	86.7	8.1	67.29
SFDD20_005							inc.	80	80.25	0.25	252
SFDD20_005							inc.	80.7	81.4	0.7	521.00
SFDD20_008A	6449193	385866	263	-65	0	167		146.9	147.5	0.6	2.61
SFDD20_006	6449201	385932	262	-60	315	190.7		153.03	154.4	1.37	2.37

Hole Number	Northing	Easting	RL	Dip (degrees)	Azimuth (degrees)	End of Hole Depth (m)		Downhole From (m)	Downhole To (m)	Downhole Intersection (m)	Au gpt (uncut)
CWS2	6449366	385828	264	-60	90	203		77	78.5	1.5	461.47
							inc.	77	78	1	690
CWS2	6449366	385828	264	-60	90	203		100.75	100.85	0.1	290
CWS16	6449297	385867	264	-89	0	133		96	96.25	0.25	54
								114.65	116	1.35	8.73
CWS22	6449255	385976	264	-66	270	181		137.4	138.8	1.4	21.15

## Appendix 2 – Mineral Resources

### Norseman Gold Project Mineral Resource

	Measured			Indicated			Inferred			Total		
	Tonnes (M)	Grade	Ounces (Moz)	Tonnes (M)	Grade	Ounces (Moz)	Tonnes (M)	Grade	Ounces (Moz)	Tonnes (M)	Grade	Ounces (Moz)
Norseman Underground	0.3	13.9	0.13	1.34	17.9	0.77	2.53	14.1	1.15	4.17	15.3	2.05
Norseman Surface	4.31	0.8	0.11	11.37	2.0	0.74	15.68	3.50	1.34	31.35	2.3	2.36

Pantoro has a 50% share of the Central Norseman Gold Project Mineral Resource.

## Appendix 3 – JORC Code 2012 Edition – Table 1

### SECTION 1: SAMPLING TECHNIQUES AND DATA

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg '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 (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>This release relates to results from a preliminary evaluation by Surface Diamond drill sampling of the Sailfish prospect located on Lake Cowan at the at the Norseman gold project.</li> <li>Diamond samples 2-5kg samples are dispatched to an external accredited laboratory (BVA Kalgoorlie and BVA Perth) where they are crushed and pulverized to a pulp (P90 75 micron) for fire assay (40g charge).</li> <li>All core is logged and sampled according to geology, with only selected samples assayed. Core is halved, with RHS of cutting line assayed, and the other half retained in core trays on site for further analysis. Samples are a maximum of 1.2m, with shorter intervals utilised according to geology to a minimum interval of ..15m where clearly defined mineralisation is evident.</li> <li>Core is aligned, measured and marked up in metre intervals referenced back to downhole core blocks .</li> <li>Visible gold is encountered and where observed during logging, Screen Fire Assays are also conducted</li> <li>Historical holes - RC drilling was used to obtain 1 m samples from which 2-3 kg split via a splitter attached to the cyclone assembly of the drill rig. From the commencement of the mine until late 1995 the assaying was done on site until the closure of the on-site laboratory the samples were sent to Silver Lake lab at Kambalda. From November 2001 the samples were sent to Analabs in Kalgoorlie, subsequently owned and operated by the SGS group. The samples have always been fire assayed with various charge weights (generally either 30 or 50g). The method was (using the SGS codes) DRY11 (sample drying, 105°C), CRU24 (crush &gt; 3.5kg, various mesh sizes per kg), SPL26 (riffle splitting, per kg), PUL48 (pulv, Cr Steel, 75µm, 1.5 to 3kg), FAA505 (AU FAS, AAS, 50g) (two of these were performed), and WST01 (waste disposal).</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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).</li> </ul>	<ul style="list-style-type: none"> <li>Surface DD – HQ and NQ2 diamond tail completed on rock roller pre-collars, All core has orientations completed where possible with confidence and quality marked accordingly.</li> <li>Historic drilling was completed using drill rigs with standard core NQ and BQ sizes nominal 47.6mm and 36.5mm.</li> </ul>

Criteria	JORC Code explanation	Commentary
Drill sample recovery	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>All holes were logged at site by an experienced geologist or logging was supervised by an experienced geologist. Recovery and sample quality were visually observed and recorded.</li> <li>DD – Significant core loss has been noted in some holes drilled. This has occurred in transitional zones where HQ triple tube was utilized.</li> </ul>
Logging	<ul style="list-style-type: none"> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>Geological logging is completed or supervised by a qualified geologist and logging parameters include: depth from, depth to, condition, weathering, oxidation, lithology, texture, colour, alteration style, alteration intensity, alteration mineralogy, sulphide content and composition, quartz content, veining, and general comments.</li> <li>100% of the holes are logged</li> <li>Historic holes: CWS2, 4, 8, 9, 13, 16, 19, 22 &amp; 30 were located and reviewed as part of the process.</li> <li>Paper logs of historic drill holes have been cross checked to database as part of the validation.</li> </ul>
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>Core samples were sawn in half utilising an Almonte core-saw or with a block splitter in oxide and transitional material, with RHS of cutting line sent for assaying and the other half retained in core trays on site for future analysis.</li> <li>For core samples, core was separated into sample intervals and separately bagged for analysis at the certified laboratory.</li> <li>Core was cut under the supervision of an experienced geologist, it is routinely cut on the orientation line.</li> <li>All mineralised zones are sampled as well as material considered barren either side of the mineralised interval</li> <li>Field duplicates i.e. other half of core or ¼ core has not been routinely sampled</li> <li>Half core is considered appropriate for diamond drill samples.</li> <li>Historic Diamond Drilling</li> <li>Visual inspection of the of the referenced historic holes have been half cored and sampled either side of ore zones to define waste boundary.</li> <li>Assays prior to June 1996 were sent to the WMC laboratory in Kalgoorlie. From July 1996 assays were sent to Analabs in Perth. Assaying procedures changed with the change in laboratory.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>• Samples that were expected to assay well, were subjected to bulk pulverisation with duplicate assays at the WMC Laboratory and Screen Fire assaying at Analabs. The routine assaying method for other samples was aqua regia digest at WMC and fire assay at Analabs.</li> <li>• The bulk pulverisation routine used at the WMC Laboratory involved milling the entire sample to a nominal -75µm. Duplicate samples were split from the milled material and the sample was analysed using aqua regia digest and an atomic absorption finish.</li> <li>• At Analabs the total sample was dried and milled in an LM5 mill to a nominal 90% passing -75µm. An analytical pulp of approximately 200g was sub sampled from the bulk and the milled residue was retained for future reference. All the preparation equipment was flushed with barren feldspar prior to the commencement of the job. A 50 gram sample was fused in a lead collection fire assay. The resultant prill is dissolved in aqua regia and the gold content of the sample is determined by AAS. For samples that contained visible free gold the screen fire assay method was used. It involved a 1000g sample screened through a 106µm mesh. The resulting plus and minus fractions were then analysed for gold by fire assay. Information reported included size fraction weight, coarse and fine fraction</li> </ul>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li>• The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>• For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>• Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul style="list-style-type: none"> <li>• Assays are completed in a certified laboratory in Kalgoorlie WA and Perth WA. Gold assays are determined using fire assay with 40g charge. Where other elements are assayed using either AAS base metal suite or acid digest with ICP-MS finish. The methods used approach total mineral consumption and are typical of industry standard practice.</li> <li>• No geophysical logging of drilling was performed.</li> <li>• Lab standards, blanks and repeats are included as part of the QAQC system. In addition the laboratory has internal QAQC comprising standards, blanks and duplicates. Sample preparation checks of pulverising at the laboratory include tests to check that the standards of 90% passing 75 micron is being achieved. Follow-up re-assaying is performed by the laboratory upon company request following review of assay data. Acceptable bias and precision is noted in results given the nature of the deposit and the level of classification</li> </ul>

Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>Significant intersections are noted in logging and checked with assay results by company personnel both on site and in Perth.</li> <li>SFDD20_005 is not a direct twin however it was drilled on a 315 degree azimuth (MGA94 Zone 52), proximal to historic hole CWS2 (a vertical hole) to intersect the interpreted vein system perpendicular to the strike.</li> <li>All primary data is logged on paper and digitally and later entered into the SQL database. Data is visually checked for errors before being sent to company database manager for further validation and uploaded into an offsite database. Hard copies of original drill logs are kept in onsite office.</li> <li>Visual checks of the data re completed in Surpac mining software</li> <li>No adjustments have been made to assay data unless in instances where standard tolerances are not met and re-assay is ordered .</li> </ul>
Location of data points	<ul style="list-style-type: none"> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>Diamond Drilling was downhole surveyed with a a Devi Gyro (Deviflex non-magnetic) survey tool with measurements taken every 3m.</li> <li>Surface DD drilling is marked out using GPS and final pickups using DGPS collar pickups</li> <li>The project lies in MGA 94, zone 52.</li> <li>Topographic control uses DGPS collar pickups and external survey RTK data and is considered adequate for use.</li> <li>Pre Pantoro survey accuracy and quality assumed to industry standard</li> </ul>
Data spacing and distribution	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>Diamond drill spacing historically at Sailfish was been 50m spacing on drill lines with only 1 -2 holes per line. This current round of drilling for 7 holes were located to test the stratigraphy and geological model, and were not on a set pattern.</li> <li>Core samples are both sampled to geology of between 0.15 and 1.2m intervals</li> </ul>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>No bias of sampling is believed to exist through the drilling orientation</li> <li>All drilling in this program is perpendicular to the interpreted orientation of the orebody.</li> </ul>

Criteria	JORC Code explanation	Commentary
Sample security	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>The chain of custody is managed by Pantoro employees and contractors. Samples are stored on site and delivered in bulk bags to the lab in Kalgoorlie and when required transshipped to affiliated Perth Laboratory.</li> <li>Samples are tracked during shipping.</li> <li>Pre Pantoro operator sample security assumed to be consistent and adequate</li> </ul>
Audits or reviews	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>No audit or reviews of sampling techniques have been undertaken however the data is managed by company data scientist who has internal checks/protocols in place for all QA/QC.</li> </ul>

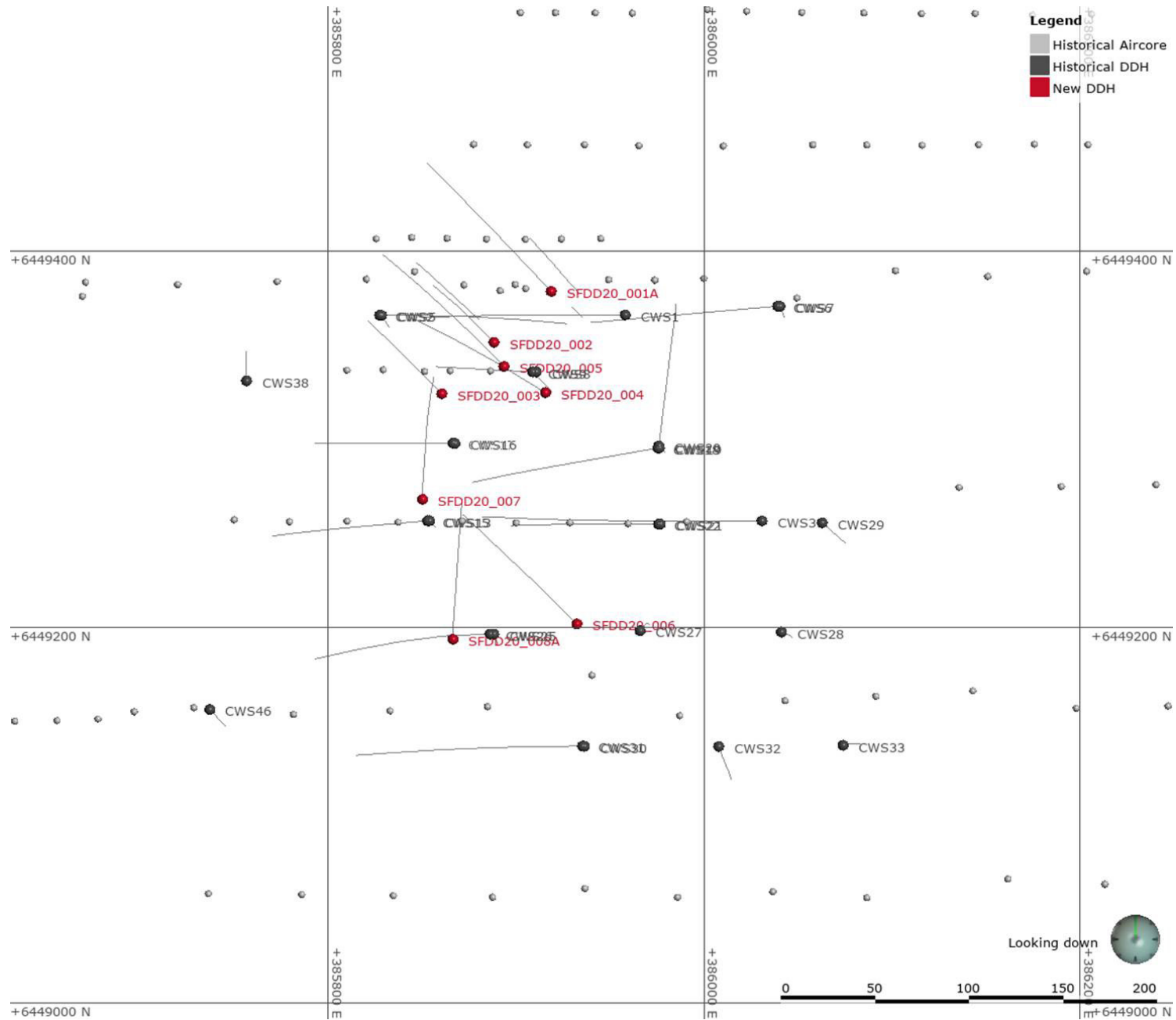
## SECTION 2: REPORTING OF EXPLORATION RESULTS

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The tenement where the drilling has been completed is 50% held by Pantoro subsidiary company Pantoro South Pty Ltd in an unincorporated JV with CNGC Pty Ltd. This is: M63/50.</li> <li>Tenement transfers to Pantoro South are yet to occur as stamp duty assessments have not been completed by the office of state revenue. The tenements predate native title claims.</li> <li>The tenements are in good standing and no known impediments exist.</li> </ul>
Exploration done by other parties	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Gold was discovered in the area 1894 and mining undertaken by small Syndicates.</li> <li>In 1935 Western Mining established a presence in the region and operated the Mainfield and Northfield areas under the subsidiary company Central Norseman Gold Corporation Ltd. The Norseman asset was held within a company structure whereby both the listed CNGC held 49.52% and WMC held a controlling interest of 50.48%. They operated continuously until the sale to Croesus in October 2001 and operated until 2006. During the period of Croesus management the focus was on mining from the Harlequin and Bullen Declines accessing the St Pats, Bullen and Mararoa reefs. Open Pits were Scotia, HV1, Daisy, Gladstone and Golden Dragon with the focus predominantly on the high grade underground mines.</li> <li>From 2006-2016 the mine was operated by various companies with exploration being far more limited than that seen in the previous years.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>In 1990, a dedicated lake capable air core rig began testing on Lake Cowan beneath Tertiary sediment and Recent mud. This was the first successful drill rig of its type used on salt lakes in Australia with significant advances having been made since this time. These initial historic programs were drilled on regional traverses at a spacing of 2 km by 400 m, with a small number of targets tested at a closer spacing. The more focussed programs were designed to test features defined by interpretation of magnetic data at the confluence of interpreted favourable stratigraphy and structure. Sailfish was defined as part of this work along with the Harlequin and Cobbler deposits with wide spaced diamond drilling conducted at the time.</li> </ul>
Geology	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>The Norseman gold deposits are located within the southern portion of the Eastern Goldfields Province of Western Australia in the Norseman-Wiluna greenstone belt in the Norseman district. Deposits are predominantly associated with near north striking easterly dipping quartz vein within metamorphosed Archean mafic rocks of the Woolyeenyer Formation located above the Agnes Venture slates which occur at the base.</li> <li>The principal units of the Norseman district, are greenstones which are west dipping and interpreted to be west facing. The sequence consists of the Penneshaw Formation comprising basalts and felsic volcanics on the eastern margin bounded by the Buldania granite batholith, the Noganyer Iron Formation, the Woolyeenyer formation comprising pillow basalts intruded by gabbros and the Mount Kirk Formation a mixed assemblage.</li> <li>The mineralisation is hosted in quartz reefs in steeper shears and flatter linking sections, more recently significant production has been sourced from NNW striking reefs known as cross structures (Bullen). Whilst a number of vein types are categorized the gold mineralisation is predominantly located in the main north trending reefs which in the Mainfield strike for over a kilometre. The quartz/ sulphide veins range from 0.5 metres up to 2 metres thick, these veins are zoned with higher grades occurring in the laminated veins on the margins and central bucky quartz which is white in colour. Bonanza grades are associated with native gold and tellurides with other accessory sulphide minerals being galena, sphalerite, chalcopyrite, pyrite and arsenopyrite.</li> <li>The long running operations at Norseman have provided a good understanding on the controls of mineralisation as well as the structural setting of the deposits. The overall geology of the Norseman area is well understood with 3D Fractal Graphic mapping and detailed studies, adding to a good geological understanding to the area. The geometry of the main lodes at Norseman are well known and plunge of shoots predictable in areas, however large areas remain untested by drilling with the potential for new spurs and cross links high. Whilst the general geology of lodes is used to constrain all wireframes, predicting continuity of grade has proven to be difficult at the higher grades when mining and in some instances (containing about 7% of the ounces) subjective parameters have been applied.</li> </ul>

Criteria	JORC Code explanation	Commentary
Drill hole Information	<ul style="list-style-type: none"> <li>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: <ul style="list-style-type: none"> <li>» easting and northing of the drill hole collar</li> <li>» elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>» dip and azimuth of the hole</li> <li>» down hole length and interception depth</li> <li>» hole length.</li> </ul> </li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>A table of drill hole data pertaining to this release is attached.</li> </ul>
Data aggregation methods	<ul style="list-style-type: none"> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>Reported drill results are uncut</li> <li>All relevant intervals to the reported mineralised intercept are length weighted to determine the average grade for the reported intercept.</li> <li>It should be noted that in some of the reported intercepts have experienced significant core loss within the reported mineralized interval. As such the intervals of core loss are calculated on a weighted average basis with the intervals of core loss assigned 0.00g/t for the purpose of the reported interval. Where this is the case these intervals are clearly identified.</li> <li>All significant intersections are reported with a lower cut off of 1 g/t Au including a maximum of 2m of internal dilution. Individual intervals below this cut off are reported where they are considered to be required in the context of the presentation of results</li> <li>No metal equivalents are reported.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<ul style="list-style-type: none"> <li>The diamond drilling of the is considered to be nominally perpendicular to the orebody as currently interpreted.</li> <li>Downhole lengths are reported and true widths are not known at this time as the orebodies in the area are prone to variable orientations and widths.</li> </ul>

Criteria	JORC Code explanation	Commentary
Diagrams	<ul style="list-style-type: none"> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	<ul style="list-style-type: none"> <li>Given the preliminary nature of the reported mineralization, appropriate diagrams are included in the report.</li> </ul>
Balanced reporting	<ul style="list-style-type: none"> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul style="list-style-type: none"> <li>All holes available are reported are included in the tables</li> <li>Diagrams show the location and tenor of both high and low grade samples.</li> </ul>
Other substantive exploration data	<ul style="list-style-type: none"> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	<ul style="list-style-type: none"> <li>No other meaningful data to report.</li> </ul>
Further work	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul style="list-style-type: none"> <li>As already noted these drilling results are part of a preliminary evaluation drilling program to follow up on an historic prospect. The results are preliminary in nature and significant further work is required to establish if an economic deposit may eventuate. Larger diameter PQ drilling is planned to infill and improve core recovery in the high grade zones.</li> </ul>



## **Exploration Targets, Exploration Results**

The information in this report that relates to Exploration Targets and Exploration Results is based on information compiled by Mr Scott Huffadine (B.Sc. (Hons)), a Competent Person who is a Member of the Australian Institute of Geoscientists. Mr Huffadine is a Director and full time employee of the company. Mr Huffadine is eligible to participate in short and long term incentive plans of and holds shares, options and performance rights in the Company as has been previously disclosed. Mr Huffadine has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Huffadine consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

## **Norseman Gold Project Mineral Resources & Ore Reserves**

The information in this report that relates to Exploration Targets, Exploration Results and Mineral Resources is based on information compiled by Mr Andrew Hawker (B.Sc. (Hons)), a Competent Person who is a Member of the Australian Institute of Geoscientists. Mr Hawker is an independent consultant to CNGP and is a director of HGS Australia Exploration Services which is the entity providing services to CNGP. HGS Australia Exploration Services is retained by CNGP under industry standard commercial consulting rates. Mr Hawker has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Hawker consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information is extracted from the report entitled 'Strategic Transaction and Capital Raising Presentation' created on 15 May 2019 and is available to view on Pantoro's website ([www.pantoro.com.au](http://www.pantoro.com.au)) and the ASX ([www.asx.com.au](http://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 announcement and, in the case of estimates of Mineral Resources or Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

## **Forward Looking Statements**

Certain statements in this report relate to the future, including forward looking statements relating to Pantoro's financial position and strategy. These forward looking statements involve known and unknown risks, uncertainties, assumptions and other important factors that could cause the actual results, performance or achievements of Pantoro to be materially different from future results, performance or achievements expressed or implied by such statements. Actual events or results may differ materially from the events or results expressed or implied in any forward looking statement and deviations are both normal and to be expected. Other than required by law, neither Pantoro, their officers nor any other person gives any representation, assurance or guarantee that the occurrence of the events expressed or implied in any forward looking statements will actually occur. You are cautioned not to place undue reliance on those statements.