

## 31 January 2017



VISION | COMMITMENT | RESULTS

ASX: PAN

## Quarterly Report for the period ending 31 December 2016

## Significant Points

### <u>GROUP</u>

- Safety no LTIs recorded
- Cash Position \$15.3 million

### **NICKEL**

### Savannah

- Project on care and maintenance
- Surface drilling program completed, significant new anomaly detected
- Restart Plan the Savannah Feasibility Study on track for completion and release to market in early February 2017

### Lanfranchi

Project on care and maintenance

## GOLD

### Gum Creek (51% indirect)

- Horizon Gold successfully listed (ASX Code: HRN) raising \$15M (before costs of IPO) to fund aggressive exploration program and development studies
- Exploration activities now underway
- Drilling planned for Q1 2017, subject to obtaining all necessary approvals
- Management provided by Panoramic staff

### <u>PGM</u>

### Panton

Research work by Curtin University ongoing

### Thunder Bay North (TBN)

Rio has confirmed the minimum spend of C\$5 million on the Project has been achieved

### **CORPORATE**

- Perth Office downsizing of the office and reduction in corporate overheads continued
- Horizon Gold recharge Management Agreement with Horizon Gold will result in shared resources and a reduction in corporate costs for both Horizon and Panoramic





## Group Summary

## <u>Safety</u>

No lost time injuries (LTI).

## Environment

There were no significant environmental incidents recorded and the operations were maintained within all statutory, regulatory and licence conditions.

## Nickel – Savannah Project

## General

The Savannah and Copernicus operations were placed onto care and maintenance in late May 2016 with the last two shipments of concentrate leaving for China in the September 2016 quarter. Approximately 530wmt of concentrate is stockpiled in Wyndham (packed in two tonne bags) and will be sold during the March 2017 quarter. The value of this bagged concentrate is circa US\$350,000 at the current US\$ Ni price.

During the quarter, the care and maintenance team were focused on training in underground pumping, surface water management, environmental sampling, administrative duties and fixed plant and mobile equipment maintenance. The water management strategy is a key component of the ongoing environmental monitoring regime and has performed as planned during the wet season.

The review and sale of redundant mobile equipment and spares continued during the quarter and resulted in a further \$144,000 in sundry income. In addition, \$458,000 in revenue was received following the finalisation of the two final concentrate shipments.

Area	Details	Units	3 mths ending 31 Dec 2016	3 mths ending 30 Sep 2016	2016/17 YTD	2015/16 Full Year	
Mining	Ore mined	dmt	-	-	-	847,638	
	Ni grade	%	-	-	-	1.33	
	Ni metal contained	dmt	-	-	-	11,274	
	Cu grade	%	-	-	-	0.75	
	Co grade	%	-	-	-	0.06	
Milling	Ore milled	dmt	-	-	-	870,542	
	Ni grade	%	-	-	-	1.32	
	Cu grade	%	-	-	-	0.74	
	Co grade	%	-	-	-	0.06	
	Ni Recovery	%	-	-	-	85.8	
	Cu Recovery	%	-	-	-	93.5	
	Co Recovery	%	-	-	-	88.6	
<b>Concentrate Production</b>	Concentrate	dmt	-	-	-	131,789	
	Ni grade	%	-	-	-	7.47	
	Ni metal contained	dmt	-	-	-	9,845	
	Cu grade	%	-	-	-	4.56	
	Cu metal contained	dmt	-	-	-	6,011	
	Co grade	%	-	-	-	0.36	
	Co metal contained	dmt	-	-	-	476	
<b>Concentrate Shipments</b>	Concentrate	dmt	-	10,227	10,227	124,962	
	Ni grade	%	-	8.67	8.67	7.46	
	Ni metal contained	dmt	-	886	886	9,316	
	Cu grade	%	-	4.86	4.86	4.58	
	Cu metal contained	dmt	-	497	497	5,728	
	Co grade	%	-	0.41	0.41	0.35	
	Co metal contained	dmt	-	42	42	436	

#### Table 1 – Savannah Project Operating Statistics (including Copernicus)



### <u>Restart Plan</u>

The Savannah Ore Reserve at 30 June 2016 remains readily accessible with minimal capital development required to resume mining. **The updated Savannah Ore Reserve has been included in the Savannah Feasibility Study**, which is due for release in early February 2017.

The objectives during the care and maintenance period are to:

- complete the combined Savannah and Savannah North ("Savannah") Feasibility Study;
- grow the Resource base by undertaking additional exploration;
- continue studying the technical viability and economics of producing a higher nickel grade bulk concentrate (+9% Ni), separate nickel and copper concentrates, and/or nickel/copper/cobalt matte; and
- identify the optimum mining and milling rates, recognising the existing mill has the capacity to treat approximately 1.0Mtpa, through the use of new mining and haulage technologies to enhance productivity and reduce unit costs.

### Savannah Feasibility Study

The Savannah Feasibility Study is due for completion in early February 2017. Major tasks completed or commenced during the quarter, included:

- An independent consultant metallurgist peer reviewed the Savannah processing history and improvement opportunities
- BECK Engineering completed geotechnical modelling on the Savannah North Resource;
- Ozvent Consulting continued work to develop a ventilation plan for mining Savannah and Savannah North mineralisation;
- Mining schedule optimisations completed; and
- Modelling of the combined Savannah-Savannah North project cash flows continued.

### The Future

Between 2004 and 2016, the Savannah mine and mill operated continuously at or above design capacity. The assets are production ready and consist of an established underground mine, a circa 1.0Mtpa processing plant, a heavy mobile mining fleet and associated infrastructure.

Subject to a sustainable recovery in the US\$ nickel price and with these production ready assets, **Savannah could be restarted in a short time frame for minimal capital investment**. Once developed, the combined Savannah Project Resource base could support operations for a significant period at production rates similar to those achieved between 2004 and 2016.

## Nickel – Lanfranchi Project

### **General**

The Lanfranchi Project has a Resource base of approximately 5.65 million tonnes at an average grade of 1.69% Ni for 95,500 tonnes of nickel contained, with approximately half of the Resource classified in the 'Measured' or 'Indicated' category (*refer to the Company's ASX announcement of 30 September 2016*).

Since placing Lanfranchi on care and maintenance in November 2015, a maiden Resource estimate for Lower Schmitz of **131,000t at 5.1% Ni for 6,700t Ni** was defined (*refer to the Company's ASX announcement of 28 April 2016*). The Lower Schmitz mineralisation is confined within a pronounced "channel-like" zone, approximately 100m wide. A simplified geological cross section of the Lower Schmitz channel feature is shown in Figure 1. Mineralisation, averaging **5-6% Ni**, is consistent throughout the channel zone, however, there is evidence to indicate that a steep west dipping fault has displaced mineralisation at depth to the NNE or SSW. To confirm this displacement, further exploration is required.

The Lower Schmitz mineralisation remains one of the priority exploration targets at Lanfranchi.



Many of the other mineralised komatiite channels at Lanfranchi remain open at depth, including the Lanfranchi, Deacon, East Deacon and Schmitz channels. Panoramic plans to undertake further exploration in these channels as soon as funds become available.





## Native Title

In November 2014, the Federal Court made a Determination of Native Title in favour of the Ngadju People, the consequence of which was that the Company's tenements at the Lanfranchi Nickel Project were invalid to the extent that they were inconsistent with the continued existence, enjoyment or exercise of Native Title rights held by the Ngadju People. The Determination was subsequently appealed by some of the Respondents to the Determination, and the Company joined as a non-participating Respondent Party to the appeal.

On 29 March 2016, the Full Federal Court handed down its decision in the appeal, which overturned the initial decision and confirmed the validity of the relevant tenements. The Ngadju People filed applications for special leave to appeal to the High Court. In October 2016, these applications were refused.

## Base Metal Exploration

## Savannah and East Kimberley Regional

### Savannah North Surface Drill Program

The Savannah North 2016 surface drilling program was completed during the quarter. The program consisted of four new surface holes and one wedged daughter hole for a total of 5,903 drill metres. Drill holes SMD167 and 167A were drilled to the west of Savannah North as an initial test of the strong EM anomaly detected previously in SMD164, modelled to extend well to the west of the Savannah North Resource (*Figures 2 and 3*).

Drill hole SMD169 is the first drill hole located in "Sub-chamber D" which is an intrusion located to the east of Savannah North (see *Figures 2 and 3*). SMD169 was drilled to test the internal geology and geometry of this intrusion. Drill holes SMD168 and 170 were drilled within the Savannah North intrusion, to the east and slightly north of the Resource, to test the relationship between the Savannah and Savannah North intrusion in that area.



Figure 2 – Simplified Savannah geological plan showing location of 2016 Savannah North surface drill holes

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#### Results

Drill hole SMD167 targeted the previously interpreted northern margin of the electromagnetic (EM) plate modelled in this area following the down-hole EM (DHEM) survey of SMD164, located 350m to the east. Based on the geology and the subsequent strong on-hole and off-hole DHEM responses identified in SMD167, it is apparent that the hole intersected the southern edge of the Savannah North intrusion and that the bulk of the intrusion and EM source lies to the east and north of the hole. The best assay result in SMD167 was 2.20m @ 0.59% Ni.

Drill hole SMD167A was then drilled targeting the base of the intrusion further to the north. Encouragingly, SMD167A intersected a broader zone of weak disseminated and blebby mineralisation at the base of the intrusion approximately 100m to the north of SMD167. The best results within this broader zone of weak mineralisation are **1.00m @ 0.92% Ni and 3.50m @ 0.74% Ni** located on the basal contact of the intrusion. This mineralised zone in SMD167A is coincident with a very strong EM response which, when subsequently modelled, confirms stronger mineralisation is located close to the hole towards the north and west.

The geology and DHEM data provided by SMD167 and 167A indicates that, at depth, the orientation of the mineralised Savannah North intrusion adopts a pronounced northwesterly trend from SMD164 and that the mineralisation remains open in this direction (see *Figures 2 and 4*).

Drill holes SMD168 and 170 were drilled within the Savannah North intrusion to the east-north-east of the existing Resource. Neither hole intersected any significant mineralisation, however both holes provided important information about the relationship between the Savannah and Savannah North intrusions in this area. No samples were submitted for assay from SMD168, while the assay results for SMD170 are pending.





Importantly, drill holes SMD168 and 170 confirm that, at depth, the Savannah and Savannah North intrusions are separate bodies, with the Savannah intrusion folded back towards the west beneath the Savannah North intrusion. This discovery may help explain the presence of several strong DHEM off-hole responses previously detected in this area (*Figure 3*).

In drill-hole SMD168, a moderate strength EM anomaly was identified coincident with the point where the hole intersected the contact of the Savannah North Intrusion. In SMD170, there are two clear, strong off-hole EM responses, interpreted as follows:

- (1) the first EM response is centred at a depth of 850m at the base of the Savannah North intrusion. Modelling of the data from this response indicates that the Savannah North Upper Zone mineralisation extends to within 50m of SMD170; and
- (2) the second EM response is off-hole below SMD170 and is modelled as a large, strongly conductive plate, dipping away to the north-west below SMD170. The modelled conductor is up-plunge from several strong DHEM responses previously detected further down-plunge to the northwest. The Company intends to extend SMD170 as soon as possible to determine the source of this anomaly.

Figure 3 – Simplified Savannah cross section 2600mN showing location of 2016 Savannah North surface drill holes







Drill-hole SMD169 is the first deep test of Sub-chamber D, located immediately to the east of the Savannah and Savannah North Intrusions. This hole intersected a thick, consistent sequence of cumulate textured noritic rock types. No significant mineralisation was intersected and no obvious mineralogical trend towards more primitive, ultramafic lithologies at depth was evident as drilling did not penetrate the base of the intrusion. The DHEM survey on SMD169 did not identify any proximal conductive sources to the hole, however did indicate a long wavelength, off-hole response which has been interpreted to be caused by a sediment horizon located to the east of the sub-chamber. Further modelling of the SMD169 DHEM survey data is ongoing.

All intersections reported in this release are down-hole lengths and not true-widths. Full details of the drill holes and JORC Compliance Tables are contained in Appendix 1.



## <u>Lanfranchi</u>

No exploration programs were undertaken at Lanfranchi during the quarter.

## PGM – Thunder Bay North Project

The Thunder Bay North (TBN) Project is located near Thunder Bay in northwest Ontario, Canada. The advanced exploration project claims cover an aggregate area of 40,816 hectares. The TBN Project Resource contains **10.4Mt at 1.13g/t Pt and 1.07g/t Pd for** ~0.4Moz Pt and ~0.4Moz Pd (*refer to the Company's ASX announcement of 30 September 2016*) with exploration potential at depth and along strike.

In 2015, Rio Tinto Exploration Canada Inc. (RTEC) commenced a farm-in whereby RTEC can earn a 70% interest in the TBN Project by sole funding C\$20 million in expenditure over five years, with a minimum spend of C\$5 million. By November 2015, RTEC had completed a diamond drilling program on the Project after drilling 11 holes, totalling 4,955 drill metres.

In September 2016, RTEC commenced a semi-airborne HeliSAM<sup>™</sup> magnetics survey over the Escape Lake, Current Lake, Beaver Lake, SEA Intrusion, 025 Intrusion and Swamp Anomaly portions of the Project. The survey was curtailed due to the inability of the HeliSAM<sup>™</sup> system to detect known near surface mineralisation at Current Lake.



In January, Panoramic and RTEC held initial discussions on the results to date and on the future plans for the project. These discussions are ongoing. RTEC confirmed that it has achieved the minimum spend of C\$5 million on the Project with total expenditure now approaching C\$8 million.

## PGM – Panton Project

Panton is located 60km south of the Savannah Nickel Project in the East Kimberley region of Western Australia. Panton is a significant PGM Resource containing ~1.0Moz Pt at 2.2g/t and ~1.1Moz Pd at 2.4g/t (refer to the Company's ASX Announcement of 30 September 2015) with exploration potential at depth and along strike.

Panoramic considers the Panton Project to be a quality PGM development asset which fits within the Company's commodity diversification and growth strategy and is a key part of its Kimberley Hub concept.

The Company is continuing to sponsor research being undertaken by Curtin University on alternative PGM leaching methods applicable to Panton ore.

## Investments – (Horizon Gold/Gum Creek Project – 51%)

#### Initial Public Offer

In July 2016, the Company announced that it had begun the process to partially divest the Gum Creek Project by way of an Initial Public Offering (IPO). On 21 October 2016, Panoramic entered into various agreements with Horizon Gold Limited ("Horizon") to transfer the Gum Creek Project and its wholly owned subsidiary, Panoramic Gold Pty Ltd, to Horizon on completion of the \$15 million IPO and the successful spin-out of Horizon onto the ASX Official List (*refer to the Company's ASX announcement of 21 October 2016*). Horizon was subsequently listed on the ASX on 21 December 2016 (**ASX Code: HRN**).

	Horizon Shares	%
Shares held by Panoramic	39,030,617	51
Capital Raising (IPO) Shares	37,500,000	49
Total Issued Capital	76,530,617	100
Share Price (as at 24 January 2017)	\$0.37	
Market cap	\$28.28 million	
Cash (as at 31 December 2016)	\$13.63 million	
Enterprise Value	\$14.65 million	

#### Table 2: Horizon Gold Limited Capital Structure

The 39.03 million shares in Horizon held by Panoramic are escrowed until December 2018.

Under the Management Agreement with Panoramic, Horizon will utilise Panoramic's management team to provide corporate, technical, managerial and administrative services to Horizon, providing a cost effective administration and continuity of knowledge in relation to Gum Creek.

#### Horizon's Objectives and Strategy

## Horizon's primary objective is to fast track exploration and development studies to become a stand-alone gold producer through the successful development of the Gum Creek Gold Project.

The strategy adopted by Horizon to achieve this goal is to:

- undertake extensional and infill drilling on the existing Gum Creek resources to grow the known resources and lift defined resources into higher-confidence JORC categories;
- undertake regional exploration targeting new gold discoveries outside of the known resources; and
- carry out development studies (including, but not limited to metallurgical and processing investigations) on the free milling and refractory mineralisation.



Horizon is planning to spend ~\$13 million over the next two years, in which approximately \$5 million will be spent on exploration and development studies in 2017, with an emphasis on:

- infill and extension drilling on the known Gum Creek Resources (Heron South, Swan North, Swift and Kingfisher);
- staged programs of ground EM surveys, IP surveys and air-core drilling, to better define regional geophysical, geochemical and structural targets;
- optimisation studies on free milling material to identify areas for possible reductions in operating and capital costs; and
- further metallurgical test work to confirm the suitability of Wilsons refractory mineralisation to treatment by a moderate temperature and pressure oxidation process.

## Corporate

## Cash Position

Group Cash at the end of the quarter totalled \$15.3 million. The movement in the cash position included the following transactions:

- \$0.5 million income from final invoice adjustments on previous nickel concentrate shipments;
- \$0.2 million income from selling redundant mobile equipment and spares;
- \$1.0 million on exploration drilling at Savannah North; and
- \$0.3 million on site, exploration and evaluation activities at Gum Creek.

Aggregate movements in the Group Cash balance over the quarter are shown in Figure 5.

At 31 December 2016, \$1.8 million was cash-backed against the drawn amount on the Company's performance bond facility.

Group finance leases for mobile equipment and insurance premiums at 31 December 2016 totalled approximately \$1.2 million.

## Perth Office

Following on from the operational changes made at the Lanfranchi and Savannah projects in 2016, staffing and remuneration levels in the Perth Office have been reduced.

Management made further changes to reduce Perth Office personnel and lower corporate costs during the quarter. Office resources will be shared and corporate overheads reduced following the signing of the Management Agreement with Horizon in October 2016.



Figure 5 – Panoramic Group Cash Movement (December 2016 Quarter)





#### About the Company

Panoramic Resources Limited (**ASX code: PAN**) is a Western Australian mining company formed in 2001 for the purpose of developing the Savannah Nickel Project in the East Kimberley. Panoramic successfully commissioned the \$65 million Savannah Project in late 2004 and then in 2005 purchased and restarted the Lanfranchi Nickel Project, near Kambalda. In FY2014, the Company produced a record 22,256t contained nickel and produced 19,301t contained nickel in FY2015. The Lanfranchi and Savannah Projects were placed on care and maintenance in November 2015 and May 2016 respectively.

Following the successful development of the nickel projects, the Company diversified its resource base to include platinum group metals (PGM) and gold. The PGM Division consists of the Panton Project, located 60km south of the Savannah Project and the Thunder Bay North Project in Northern Ontario, Canada, in which Rio Tinto is earning 70% by spending up to C\$20 million over five years. Following the ASX listing of Horizon Gold Limited (ASX Code: HRN) in December 2016, the Company's interest in gold consists of an indirect investment in the Gum Creek Gold Project located near Wiluna through its 51% majority shareholding in Horizon.

Panoramic has been a consistent dividend payer and has paid out a total of \$114.3 million in fully franked dividends between 2008 and 2016. At 31 December 2016, Panoramic had \$15.3 million in cash and no bank debt.

The Company's vision is to broaden its exploration and production base, with the aim of becoming a major, diversified mining company in the S&P/ASX 100 Index. The growth path will include developing existing resources, discovering new ore bodies, acquiring additional projects and is being led by an experienced exploration-to-production team with a proven track record.

For further information contact: Peter Harold, Managing Director +61 8 6266 8600



## <u>Appendix 1</u>

## Savannah North Project – Tabulation of Drill Hole Assay Results and 2012 JORC Compliance Tables

Hole	East (m)	North (m)	RL (m)	Dip (°)	Azi (°)	EOH (m)	From (m)	To (m)	Intercept (Ni)	Cu (%)	Co (%)
SMD167	395090.3	8082875.1	2393.0	-81.0	176.0	1666.00	1615.20	1617.40	2.20m @ 0.59 %	0.38	0.03
SMD167w1	395094.0	8082874.0	2380.0	-81.0	176.0	1778.80	1684.90	1685.90	1.00m @ 0.92 %	0.41	0.07
							1692.50	1696.00	3.50m @ 0.74 %	0.58	0.05
					inclu	ıding	1692.50	1693.50	1.00m @ 1.35 %	1.14	0.09
SMD168	396483.5	8082538.9	2345.5	-65.6	91.5	1082.00	No samples assayed				
SMD169	397254.9	8082882.9	2330.8	-65.9	356.8	925.10	Assays pending				
SMD170	396488.0	8082527.0	2345.5	-85.8	66.5	1185.80	Assays pending				

Notes:

Intervals are down-hole lengths, not true-width

Parameters: 0.50% Ni lower-cut off, maximum internal waste of 4.0m, minimum intercept of 0.5m

#### Savannah North Project – Table 1, Section 1 - Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <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> <li>The Savannah deposit and surrounding exploration areas are typically sampled by diamond drilling techniques. Over 1500 holes have been drilled for a total in excess of 220,000m. The majority of holes were drilled from underground drill platforms.</li> <li>About the mine the drillhole spacing is a nominal 25x25m grid spacing over the extent of the mineralisation.</li> <li>All drillhole collars were surveyed using Leica Total Station survey equipment by a registered surveyor. Downhole surveys were typically performed every 30 metres using either "Reflex EZ Shot" or "Flexit Smart Tools".</li> <li>All diamond core is geologically logged with samples (typically between 0.2 metre to 1 metre long) defined by geological contacts. Analytical samples include a mix of full and sawn half core samples. Sample preparation typically involves pulverising the sample to 90% passing 75 µm followed by either a 3 or total 4 acid digest and analysis by either AAS or ICP OES.</li> </ul>
Drilling techniques	<ul> <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> <li>A mix of LTK60 and NQ2 sized diamond drilling has been used to obtain &gt;90% of the data in the mine database. Exploration holes are typically NQ2 size. Some RC drilling has been used historically for the upper part of the mine.</li> </ul>
Drill sample recovery	<ul> <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> <li>Diamond core recoveries are logged and recorded in the database. Overall recoveries are &gt;99% and there are no apparent core loss issues or significant sample recovery problems.</li> <li>Depths checked against core blocks, regular rod counts, driller breaks checked by fitting core together.</li> <li>No relationship exists between sample recovery and grade</li> </ul>
Logging	<ul> <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> <li>All holes have been geologically logged in full. Geotechnical logging was carried out on all diamond drill holes for recovery and RQD. Number of defects (per interval) and roughness was carried out around the ore zones. Structure type, alpha angle, infill, texture and healing is stored in the structure table of the database.</li> <li>Logging of diamond core RC samples recorded lithology, colour, mineralisation, structural (DDH only) and other features. Core was photographed wet.</li> <li>All drill holes were logged in full.</li> </ul>



Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> </ul>	<ul> <li>Analytical core samples included a mix of full and sawn half core samples.</li> </ul>
sample preparation	<ul> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wat or dry</li> </ul>	All samples from core
P. operation	<ul> <li>For all sample types, the nature, quality and</li> </ul>	All core sampling and sample preparation followed industry best
	appropriateness of the sample preparation technique.	practice.
	<ul> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> </ul>	<ul> <li>QC involved the addition of Savannah derived CRM assay standards, blanks, and duplicates. At least one form of QC was inserted in most sample batches.</li> </ul>
	<ul> <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> </ul>	<ul> <li>Original versus duplicate assay results have always shown strong correlation due to massive sulphide rich nature of the orebody.</li> </ul>
	Whether sample sizes are appropriate to the grain size of the material being sampled.	<ul> <li>Sample sizes are considered appropriate to represent the Savannah style of mineralisation.</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.	<ul> <li>The Savannah Nickel Mine (SNM) standard analytical technique is a 3- acid digest with an AAS finish. The method best approaches total dissolution for most minerals. Exploration samples sent off-site are analysed using a 4-acid digest with either ICP OES or AAS finish (AAS for ore grade samples).</li> </ul>
	<ul> <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> </ul>	<ul> <li>No other analytical tools or techniques are employed.</li> </ul>
	<ul> <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> <li>The onsite laboratory carries out sizing checks, uses internal standards, duplicates, replicates, blanks and repeats. A selection of roughly 10% of pulps was sent to external laboratories for repeat analysis and sizing checks. No bias has been identified.</li> </ul>
Verification of sampling and	<ul> <li>The verification of significant intersections by either independent or alternative company personnel</li> </ul>	<ul> <li>Drilling and sampling procedures at the SNM have been inspected by many stakeholders since the project began</li> </ul>
assaying	The use of twinned holes.	<ul> <li>Throughout the life of the mine, there have been several instances where holes have been twinned, confirming intersections and continuity.</li> </ul>
	<ul> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> </ul>	<ul> <li>Holes are logged into Excel<sup>™</sup> templates on laptops, data is then entered into MS Access<sup>™</sup> database with user data entry front end built in. Data is ultimately transferred to SQL server from Perth office. Data periodically validated by site personnel.</li> </ul>
	<ul> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>No adjustments have been made to assay data.</li> </ul>
Location of data points	<ul> <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> </ul>	<ul> <li>All diamond drill hole collars were surveyed using Leica Total Station survey equipment by a registered surveyor. "Reflex EZ Shot" or "Flexit Smart Tool" was used for downhole surveys at approximately every 30m. Visual inspection in a 3D graphics environment using Surpac software failed to identify any obvious errors regarding the spatial position of drillhole collars or downhole surveys</li> </ul>
	Specification of the grid system used.	<ul> <li>The mine grid is a truncated 4 digit (MGA94) grid system.</li> <li>Conversion from local grid to MGA GDA94 Zone 52 is calculated by applying truncated factor to local coords: E: +390000, N: +8080000N</li> </ul>
	Quality and adequacy of topographic control.	Topographic control is of a high quality and is adequate for the resource estimation process
Data spacing and distribution	<ul> <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> </ul>	<ul> <li>Nominal drill hole spacing of 25m (easting) by 25m (RL)</li> <li>The mineralised domains delineated by the drill spacing show enough continuity to support the classification applied under the 2012 JORC Code.</li> </ul>
	Whether sample compositing has been applied.	No sample compositing has been undertaken.
Orientation of data in relation to geological	<ul> <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> </ul>	<ul> <li>Drill hole orientation was largely perpendicular to the orebody with the exception of the western extent where drill platform positions allowed only for oblique intersections.</li> </ul>
structure	<ul> <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> <li>No orientation sampling bias has been identified.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>Samples transported to onsite lab by SNM staff. Samples sent off site are road freighted (Nexus transport) and tracked using spreadsheets onsite.</li> </ul>



Criteria	JORC Code explanation	Commentary
Audits or	<ul> <li>The results of any audits or reviews of sampling</li> </ul>	<ul> <li>No recent audits/reviews of the sampling techniques have been</li> </ul>
reviews	techniques and data.	undertaken. The procedures used are considered to be industry
		standard. Mine to mill reconciliation records throughout the life of the
		Savannah Project provide confidence in the sampling procedures.

### Savannah North Project - Table 1, Section 2 - Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary			
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and owners including agreements or material issues with third p such as joint ventures, partnerships, overriding roya native title interests, historical sites, wilderness or n park and environmental settings.</li> </ul>	<ul> <li>The Savannah Nickel Mine (SNM) is an operating mine secured by 5 contiguous Mining Licences. All tenure is current and in good standing.</li> <li>SNM has the right to explore for and mine all commodities within the mine tenements.</li> </ul>			
	<ul> <li>The security of the tenure held at the time of report along with any known impediments to obtaining a li to operate in the area.</li> </ul>	<ul> <li>The SNM is an operating mine with all statutory approvals and licences in place to operate. The mine has a long standing off-take agreement to mine and deliver nickel sulphide concentrate to the Jinchuan Group in China.</li> </ul>			
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by of parties.</li> </ul>	<ul> <li>Since commissioning the Savannah Project in 2004, SNM has conducted all exploration on the mine tenements.</li> </ul>			
Geology	Deposit type, geological setting and style of minera	<ul> <li>The SNM is based on mining ore associated with the Savannah Intrusion; a palaeo-proterozoic mafic/ultramafic magma conduit. The Ni- Cu-Co rich massive sulphide mineralisation occurs as "classic" magmatic breccias developed about the more primitive, MgO rich ores basal parts of the conduit.</li> </ul>			
Drill hole Information	<ul> <li>A summary of all information material to the unders of the exploration results including a tabulation of the following information for all Material drill holes:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation ab 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 that the information is not Material and this exclusion ot detract from the understanding of the report, the Competent Person should clearly explain why this is case.</li> </ul>	<ul> <li>All exploration at SNM is conducted on the Savannah mine grid, which is a "4 digit" truncated MGA grid. Conversion from local to MGA GDA94 Zone 52 is calculated by applying truncated factor to local coords: E: +390000, N: +8080000. RL equals AHD + 2,000m. Additional drill hole information includes:         <ul> <li>Savannah underground diamond drill holes are typically NQ2 size, though some deep holes are commenced HQ size and then reduced. Deep surface holes are commenced PQ size, then reduced to HQ and eventually NQ2 size</li> <li>All core is orientated and photographed prior to cutting and sampling</li> <li>All intersection intervals are reported as down-hole lengths and not true widths</li> <li>All assays are typically performed on the Savannah onsite laboratory, otherwise by SGS Laboratories in Perth</li> </ul> </li> </ul>			
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averagin techniques, maximum and/or minimum grade trunc (eg cutting of high grades) and cut-off grades are u Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengthing grade results and longer lengths of low grade the procedure used for such aggregation should be and some typical examples of such aggregations si</li> </ul>	<ul> <li>Weighted averages were calculated using parameters of 0.5% Ni lower cut-off, minimum reporting length of 1m and maximum internal waste of 7m.</li> <li>Cu and Co grades were determined by the defined Ni grade interval, ie they are not calculated independently.</li> <li>For all Savannah North Maiden Resource drill hole intercepts the process is essentially the same except the individual sample SG values</li> </ul>			
	<ul> <li>be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	are also incorporated in to the weighting calculation.			
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this (eg 'down hole length, true width not known').</li> </ul>	<ul> <li>The geometry of the mineralisation reported herein with respect to the drill holes being reported has not been established.</li> <li>the ted.</li> <li>All intersection lengths reported in this accompanying release are downhole lengths and not true widths.</li> </ul>			
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should i but not be limited to a plan view of drill hole collar la and appropriate sectional views.</li> </ul>	Based on the limited level of data currently available for this area at Savannah it was deemed that a simplified plan and section view showing the location of the exploration drill results in relation to the main areas of the SNM operation was appropriate.			
Balanced reporting	<ul> <li>Where comprehensive reporting of all Exploration F is not practicable, representative reporting of both I high grades and/or widths should be practiced to av misleading reporting of Exploration Results.</li> </ul>	<ul> <li>Based on the fact that exploration results reported herein are from several drill holes, located well away from other mine drill holes, the report is considered to be sufficiently balanced.</li> </ul>			



Criteria	JO	RC Code explanation	Сс	ommentary
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.	•	No other exploration data is considered material to this release at this stage.
Further work	•	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step- out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive	•	The exploration results reported herein are for the Savannah North Project. Work is ongoing and further results will be reported if and when they become available.