

Maiden JORC Resource Estimate for Saints Nickel Deposit, Kalgoorlie

Highlights

- Maiden JORC 2012 Mineral Resource estimated for Saints nickel deposit
- Total Inferred Mineral Resource of 1.05 million tonnes at 2.0% Ni for 21,000t of contained nickel above 1.0% Ni cut-off
- Mineralisation remains open at depth
- Saints deposit available for sale, being a non-core asset

Summary

The Saints deposit, 65 km NNW of Kalgoorlie, is an Archaean Kambalda-style, komatiite-hosted, massive nickel sulphide deposit. Anomalous nickel was first highlighted by Asarco in the 1970's by shallow RAB drilling however it wasn't until 1996-1997 that the first RC and diamond drill holes, drilled by WMC, penetrated what is now part of the Saints nickel resource. Various companies drill tested the deposit through to 2011 and prior to Minotaur acquiring ownership in 2013. Historic drilling allowed mineralisation to be defined to around 480 metres below surface. The historical data was compiled and reviewed by Minotaur and further reviewed and then modelled by RPM Holdings Limited (RPM, formerly RungePincockMinarco Limited) in March -April 2017, providing Competent Person preparation of the maiden Mineral Resource estimate.

The maiden Mineral Resource estimate for the Saints nickel deposit was prepared and reported by RPM according to JORC 2012 guidelines. The total Resource, a compilation of the Saint Andrews, Saint Patricks and Western Contact deposits, all classified as Inferred and reported above 1.0% Ni cut-off, contains **1.05Mt** @ **2.0% Ni for 21,000 tonnes of nickel, 0.2% Cu for 1,600 tonnes of copper and 0.06% Co for 600 tonnes of cobalt.**

The estimate reports 98% of the resource in fresh primary sulphide mineralisation (Table 1).



Туре	Tonnage	Ni	Cu	Co	Ni	Cu	Co
	kt	%	%	%	t	t	t
Oxide	2	1.0	0.02	0.02			
Transitional	22	1.7	0.1	0.05	400		
Fresh	1,020	2.0	0.2	0.06	21,000	1,600	600
Total	1,050	2.0	0.2	0.06	21,000	1,600	600

Table 1: Inferred Mineral Resource estimated tonnes, grade and contained metal tonnes.

Note:

 Totals may differ due to rounding, Mineral Resources reported on a dry in-situ basis.
 The Statement of Estimates of Mineral Resources has been compiled by Mr. Shaun Searle who is a fulltime employee of RPM and a Member of the AIG. Mr. Searle has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that he has undertaken to qualify as a Competent Person as defined in the JORC Code (2012).

3. All Mineral Resources figures reported in the table above represent estimates at 4 May, 2017. Mineral Resource estimates are not precise calculations, being dependent on the interpretation of limited information on the location, shape and continuity of the occurrence and on the available sampling results. The totals contained in the above table have been rounded to reflect the relative uncertainty of the estimate. Rounding may cause some computational discrepancies.

4. Mineral Resources are reported in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The Joint Ore Reserves Committee Code – JORC 2012 Edition).
5. Reporting cut-off grade selected based on an RPM internal cut-off calculator, utilising cost estimates based on similar deposits in the region, assuming a nickel price of AUD\$13,000/t, mining cost of AUD\$75/t ore (utilising underground mining methods), processing costs of AUD\$35/t ore milled and processing recovery of 85% for Ni concentrate.

Project Location

The Saints nickel sulphide deposit is located approximately 65km north-northwest of Kalgoorlie-Boulder in the Goldfields region of Western Australia and 7km east of the Goldfields Highway (Figure 1). The resource is sited on M29/245, part of the Scotia group of tenements held by Minotaur Gold Solutions Ltd, a wholly-owned subsidiary of Minotaur Exploration Ltd (ASX: MEP, 'Minotaur' or the 'Company').

Resource Methodology

Material information used to estimate and report the Mineral Resource as per the JORC 2012 Code Reporting Guidelines is presented in detail in Table 1 of Appendix 1. The information below is presented as per the requirements of ASX Listing Rule 5.8.1 for a Maiden Resource Estimate and explains the main aspects of the resource estimation process.



Figure 1: Location of the Saints Nickel deposit and Scotia tenements, relative to Kalgoorlie



Geology and Geological Interpretation

The Saints deposit lies within the Archean Norseman-Wiluna Greenstone Belt on the western limb of the Scotia-Kanowna Anticline (Figure 1). Mineralisation is hosted in ultramafic rocks comprising komatiite flows which are considered equivalent to the Highway Ultramafics that host the Scotia Nickel deposit located along strike approximately 15km to the south.

Nickel sulphide mineralisation occurs in three known zones; Saint Patricks, Saint Andrews and the Western Contact (Figure 2). All three zones dip between approximately 35-55 degrees toward the WSW (Figure 3). The main sulphide species recognised in all three mineralisation zones are pyrrhotite, pentlandite, chalcopyrite and pyrite, with violarite in the transitional to weathered zone. Ore grade nickel mineralisation occurs as massive or matrix sulphides in the main ore zones with disseminated or cloud sulphides occurring in the hanging wall position proximal to mineralisation. Mineralisation widths range from 1-6 metres (true width).

The Saints Mineral Resource area extends over a NNW strike length of 1,540m (from 6,671,900mN – 6,673,340mN) and includes the 480m vertical interval from 360mRL to -120mRL (Figures 4 and 5). A weathered oxide zone is developed down to around 40m across the deposits and a variable transitional zone occurs between 20-80m before passing into fresh primary sulphide from 20m to 480m vertical depth; the base of resource model.



Figure 2: Saints interpreted basement geology map showing location of known mineralisation relative to host rock units. Location of cross-section in Figure 3 shown as A-A'



Figure 3: Cross-section 6673255N (looking north) through Saint Patricks resource to illustrate dip of mineralised envelope. The Mineralised wireframes outlined in red are at 1% Ni cut-off. Dips for all 3 mineralised zones (Saint Patricks, Saint Andrews and Western Contact) vary between 35-55 degrees to the WSW







Figure 4: Saints resource in plan view showing resource wireframes. Map is in MGA94, Zone 51

Figure 5: Saints nickel resource block model in plan view showing distribution of estimated nickel values. Map is in MGA94, Zone 51

Drilling technique, hole locations and downhole surveys

All drill hole data available from previous companies have been reviewed in detail by MEP and RPM. In the immediate Saints area there have been numerous drilling campaigns from the early 1970's through to the last diamond hole drilled by Breakaway Resources in 2011, resulting in 363 drill holes for 32,316m of drilling. This drilling varied from regional rotary air blast ("RAB") and air core ("AC") traverses to resource definition reverse circulation ("RC") and diamond drilling ("DD") with drilling completed by Asarco (1974-1979), WMC (1981-2000), Dalrymple - Scotia Nickel (2002-2003), Scotia Nickel – LionOre (2003-2005) and Breakaway Resources (2006-2011). A total of 54 holes were used for the resource estimation and include 2 AC holes for 149m (8m inside resource), 14 RC holes for 2,066m (63m inside resource) and 38 DD holes for 10,932m (195m inside resource).

The WMC collar location data reliability and survey methodology are unspecified in the available reports. Scotia Nickel collar locations from 2002-2004 were determined by differential GPS ("DGPS") relative to AGD84 datum (AMG coordinates). The location methodology for LSGD0017 drilled in 2004-2005 is unspecified however the data are reported relative to AGD84. Breakaway Resources collars for holes drilled in 2006-2008 were located relative to AGD84 datum by handheld GPS. The drill hole collar locations are considered to have an appropriate level of accuracy for an Inferred Mineral Resource.

All of the historic Saints drill holes have been drilled relative to a surveyed AMG grid. WMC did not survey the RC drill holes (8 holes) but typically surveyed diamond drill holes every 20-30m down-hole during 1996-1998. Scotia Nickel (2002-2005) surveyed holes every 30m during drilling with an Eastman single shot camera followed up by detailed 5m downhole surveys utilising a north-seeking gyroscopic tool. Breakaway Resources drill holes completed during 2006-2008 were initially surveyed every 30m during drilling by Eastman single shot camera or Reflex survey tool and subsequently surveyed at 5m intervals with a north-seeking gyroscopic tool, where possible. The drill hole survey information is considered to have an appropriate level of accuracy for an Inferred Mineral Resource.

Sampling and Sub-sampling Techniques

Sampling procedures followed by historic operators are considered to be in line with industry standards at the time.

WMC typically sampled in 1-2 metre intervals, skipping intervals of no interest and increasing the frequency of sampling depending on the geology observed in diamond core (smallest sample length 0.19m).

Scotia Nickel typically sampled in 1-4 metre intervals, skipping intervals of no interest and increasing the frequency of sampling depending on the geology observed in diamond core (smallest sample length 0.2m). For drill hole LSGD0017 diamond drilling was completed using HQ3 and NQ2 core sampled by quarter and half core with sampling constrained by lithological boundaries, generally in continuous lengths with sampling consistently on the same side of the core (maximum sample length of 1m).

Breakaway Resources' drilling typically sampled in 4m intervals from start of hole, increasing the sampling rate to every metre, or to more detail depending on the geology observed in diamond core (smallest sample length 0.15m). Reports for holes completed in 2006-2008 shows that diamond drilling



was completed using HQ and NQ core sampled by quarter and half core with sampling constrained by lithological boundaries, generally in continuous lengths with sampling consistently on the same side of the core (maximum sample length 1m).

Sample recovery assessment details were not documented by previous operators WMC and Scotia Nickel. In 2006-2007 Breakaway AC samples returned 80 – 90% dry sample and 70 – 80% recovery; diamond core was 100% recovered. Any bias or relationship between sample loss and nickel grade for any other holes has not been documented.

Criteria used for Classification, including drill and data spacing and distribution

The Saints Inferred Mineral Resource estimate is reported here in compliance with the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' by the Joint Ore Reserves Committee (JORC). The Mineral Resource was classified based on data quality, sample spacing, and lode continuity. The Saints deposit has been classified as Inferred Mineral Resource based on the predominant drill spacing of 40m by 30m.

Historically, data spacing of samples through the mineralised zone was 1m, however when necessary smaller intervals were sampled where constrained by lithological boundaries or required in zones of interest.

The spacing of the historic drill data is sufficient to establish the degree of geological and grade continuity appropriate for estimating an Inferred Ni Resource. The input data is comprehensive in its coverage of the mineralisation and does not favour or misrepresent in-situ mineralisation. The definition of mineralised zones is based on high level geological understanding producing a robust model of mineralised domains. Validation of the block model shows good correlation of the input data to the estimated grades.

It is assumed that higher confidence levels could be obtained with future infill RC and diamond drilling, increased density measurements and preliminary metallurgical testing.

Sample Analysis Method

The analysing laboratory for WMC drill samples during 1996-1997 is not known. It is likely that Au, Ni, Cu, Co, Cr and Zn analyses were performed by the WMC Kambalda Nickel Operations onsite laboratory, possibly ACTLABS. WMC base metal samples from 1997-1998 were analysed by ACTLABS utilising mixed hydrofluoric acid digestion and ICP-OES analysis with lower detection limits Ni 0.001%; Cu, Cr, As, MgO, S, Zn and Al 5ppm.

Scotia Nickel drill samples from 2002-2003 were prepared and analysed by Genalysis Laboratories in Perth WA for Ag, As, Co, Cr, Cu, Fe, Mg, Mn, Ni, S, Ti, Zn by AT/OES. Drill samples from 2003-2004 were also prepared and analysed by Genalysis Laboratories in Perth WA for Ag, As, Au, Co, Cr, Cu, Fe, Mg, Mn, Ni, Pd, Pt, S, Ti, Zn by AT/OES. Drill samples from 2004-2005 were submitted by Scotia Nickel to either Ultratrace or Genalysis Laboratories in Perth WA for sample preparation and analysis for Al, As, Au, Co, Cr, Cu, Fe, Mg, Mn, Ni, Pd, Pt, S, Zn by AT/OES.

During 2006-2007 Breakaway Resources submitted drill samples to either Ultratrace or Genalysis Laboratories in Perth WA for analysis by mixed four-acid digest with results for Al, As, Co, Cr, Cu, Fe, Mg, Mn and Ni read by ICP, with Pd, Pt and Au analysed by Pb collect fire assay. The 2007-2008 Breakaway drill samples were prepared and analysed



at Ultratrace laboratory in Perth WA. Following pulverisation with a robotic vibrating disc pulveriser, matrix and massive sulphide samples were cast using a 12:22 flux (sodium nitrate) to form a glass bead and analysed by XRF. Disseminated sulphide samples were subjected to a four-acid digest and analysed by ICP-OES.

Sampling QAQC measures taken by WMC, Scotia Nickel and Breakaway 1996 – 2008 have not been documented; it is considered that sample sizes were appropriate for the type, style and thickness of mineralisation tested and expected that industry standard QAQC measure were undertaken.

Estimation Methodology

The deposit mineralisation was constrained by a cutoff grade of 0.5% Ni for low grade or disseminated sulphides and 1% Ni for higher grade or matrix/ massive sulphides. The wireframes were applied as hard boundaries in the estimate. Maximum extrapolation of wireframes from drilling was 50m down-dip beyond the last drill holes on section. This was equivalent to approximately one drill hole spacing in this portion of the deposit and thus is classified as Inferred Mineral Resource. Extrapolation was generally half drill hole spacing between drill holes.

Using parameters derived from modelled variograms, Ordinary Kriging (OK) was used to estimate average block grades in three passes using Surpac software. Linear grade estimation was deemed suitable for the Saints Mineral Resource due to the exhibited geological control on mineralisation.

The parent block dimensions used were 20m NS by 5m EW by 5m vertical (1.25m by 0.625m by 0.625m sub-cells). The parent block size dimensions were

selected to provide sufficient resolution in the acrossstrike and down-dip direction whilst adequately reflecting the drill hole spacing in the along-strike direction.

An oriented 'ellipsoid' data search was oriented to account for the variations in lode orientations. All other estimation parameters were taken from the modelled variograms. Three passes were used to estimate blocks (see Table 1 of Appendix 1 for details).

Statistical analysis was carried out on data from 13 lodes. The low coefficient of variation of Ni grades observed in the basic statistics for all domains suggested that no top cuts were necessary.

Weathering surfaces for base of complete oxidation and top of fresh rock were used to code material type and density into the block model. Densities applied in the model were 2.2t/m3 for oxide, 2.73t/m3 for transitional, 2.89t/m3 for fresh waste and (Fe % * 0.0313)+2.7066t/m3 for fresh, mineralised material. Densities applied in the fresh mineralised material used a Fe linear regression equation determined from the Fe and measured density data.

Validation of the model included detailed comparison of composite grades and block grades by northing and elevation. Validation plots showed reasonable correlation between the composite grades and the block model grades.

Cut-off Grade

The Inferred Mineral Resource is reported above 1.0g/t Ni cut-off. The reporting cut-off grade was selected based on an RPM internal cut-off calculator, utilising cost estimates based on similar deposits in the region, assuming a nickel price of AUD\$13,000 per tonne and underground mining methods.



Mining and Metallurgical Methods and Parameters

RPM has assumed that the deposit could potentially be mined using underground mining techniques with toll treatment through a third party processing plant. No assumptions have been made for mining dilution or mining widths. No metallurgical testing has been conducted on the Saints deposit. RPM assumed that the Saints material would be processed into a Ni concentrate, with processing recoveries of approximately 50% for oxide and 85% for transitional and fresh material, based on known recoveries of similar deposit styles in the region.

Conclusion

Publication of the JORC 2012 Mineral Resource establishes Saints as an appreciable nickel sulphide Mineral Resource that remains open down-dip, suggesting scope for additional nickel tonnes. An untested nickel target occurs below the deposit in a postulated structural position and untested ground EM conductors also occur in the vicinity of the deposit, suggesting potential for nickel sulphide mineralisation.

Non-core asset available for sale

Minotaur welcomes this outcome, bringing context to the Saints deposit through the issue of a JORC resource estimate. The Company reiterates its focus on copper-gold discovery and notes recent progress in divestment of non-core assets, such as the nearby Chameleon gold deposit and nickel rights at West Kambalda. The Saints deposit is such an asset and is ranked as available for sale.

Ownership

Minotaur Gold Solutions Ltd (MinAuSol) is the tenement holder of the Scotia tenement package (Fig 1) comprising M29/245 and M29/246. MinAuSol is a wholly owned subsidiary of Minotaur Exploration Ltd.

Andrew Woskett

Managing Director Minotaur Exploration Ltd T +61 8 8132 3400 www.minotaurexploration.com.au



COMPETENT PERSON'S STATEMENT

Information in this report that relates to Exploration Results is based on information compiled by Mr Glen Little, who is a full-time employee of the Company and a Member of the Australian Institute of Geoscientists (AIG). Mr Little has sufficient experience relevant to the style of mineralization and type of deposit under consideration and to the activity that he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code). Mr Little consents to inclusion in this document of the information in the form and context in which it appears.

MINERAL RESOURCE ESTIMATE

Information in this report that relates to Mineral Resources, is based on information compiled by Mr Shaun Searle, who is a full-time employee of RPM Holdings Limited and a Member of the Australian Institute of Geoscientists (AIG). Mr Searle has sufficient experience relevant to the style of mineralization and type of deposit under consideration and to the activity that he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code). Mr Searle consents to inclusion in this document of the information in the form and context in which it appears.



Appendix 1

JORC Code, 2012 Edition, Table 1

Section 1: Sampling Techniques and Data

Sampling techniques• 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• Nickel mineralisation at Saints has been sampled by drilling from surface to 420m vertical depth. Drilling methods employed from 1996-2011 include aircore, percussion/ reverse circulation (RC) and diamond cored drilling.• Aircore, percussion and RC drilling returns a sample
 XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. 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 (eg 'reverse circulation drilling was used to obtain 1m samples from which 3kg was pulverised to produce a 30g charge for fire assay). In other cases more explanation may warrant disclosure of detailed information. Historica dill hole assays, in conjunction with historic samples for MWC): RC samples, 1 - 2m composite diamond core samples, Analysis at ACTLABS by mixed hydrofluoric acid digestion followed by ICP-OES analysis; 2002 - 2005 (Scotia Nickel): 2 - 4m composite samples for RC precolar; 0.2 - 1.3m ½ and ½ core HQ3 and NQ2 diamond core samples; Genalysis AT/OES and NiS/MS (Modified Nickel sulphide – Fire Assay - ICP-MS); Flame Atomic MS for Pt/Pd assays. 2006-2011 (Breakaway): 4m AC composite samples, Genalysis



Criteria	JORC Code explanation	Commentary
Drilling techniques	 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). 	 1996-1997 (WMC): 8 RC-percussion holes for 984m diameter unspecified, no downhole surveys; 7 diamond core drill holes for 1561m - diameter unspecified, 20m downhole surveys by method unspecified. 1997-1998 (WMC): 8 diamond core drill holes for 1785m – diameter unspecified, 20-30m downhole surveys by method unspecified; 2002-2003 (Scotia Nickel): 2 diamond core drill hole for 716m, NQ diameter, 30m downhole surveys with Eastman single shot camera; 2003-2004 (Scotia Nickel): 2 diamond core holes for 655m, 5m downhole surveys by north seeking gyro downhole survey tool; 2004-2005 (Scotia Nickel): 1 diamond core drill hole for 370m, HQ3 and NQ2, 30m downhole surveys by Eastman single shot camera; 2006-2007 (Breakaway): 2 AC holes for 1082m, diameter unspecified, 30m Eastman single shot camera or Reflex tool surveys followed up with north-seeking gyro survey (5m intervals) in 4 of six RC drill holes; 13 diamond core drill holes for 4632m, HQ and NQ, 30m Eastman single shot camera or Reflex tool surveys followed up with north-seeking gyro survey (5m intervals) in 10 of thirteen diamond drill holes, core structurally orientated by method unspecified. 2007-2008 (Breakaway): 5 diamond core drill holes for 1214m, HQ and NQ, 30m Eastman single shot core structurally orientated by method unspecified.
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 	 Sample recovery assessment details not documented by previous operators WMC and Scotia Nickel. 2006-2007 (Breakaway): AC samples approximately 80 – 90% dry sample and 70 – 80% recovery recorded in Breakaway Access drill hole database. 2006-2008 (Breakaway): Diamond core 100% core recovery recorded in Breakaway Access drill hole database. Measures taken by previous operators 1996-2008 to maximize sample recovery and representivity have



Criteria	JORC Code explanation	Commentary
		 Any bias or relationship between sample loss and nickel grade realized by previous operators 1996- 2008 has not been documented.
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. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. 	 Geological logging of historic drill holes was reviewed by MEP using historic statutory reports and databases compiled by previous operators. Geological logging data collected to date is sufficiently detailed to support an Inferred Ni Resource at Saints. At this stage detailed geotechnical logging is not required. Geological logging is intrinsically qualitative. 2006 – 2008 (Breakaway): Diamond core have been photographed in the core trays. No core photos are available for historic drilling by WMC and Scotia Nickel (1996-2005). Historic drill holes were geologically logged by previous operators and these data are available to MEP.
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. 	 1996 – 1998 (WMC): Core samples are documented as 'split' in statutory annual reporting; it is assumed that half core was sampled for analysis and may have been hand-split with a chisel or similar tool rather than sawn. 2002 – 2005 (Scotia Nickel): Core was sampled as sawn half or quarter core, generally in continuous lengths with sampling consistently on the same side of the core. 2006 – 2008 (Breakaway): Core was sampled predominantly as sawn half core with some quarter core, generally in continuous lengths with sampling consistently on the same side of the core. Measures taken by WMC, Scotia Nickel and Breakaway 1996 - 2008 to ensure RC, percussion or AC sample representivity have not been documented. 1m and 2m RC, percussion or AC samples and maximum1m length core samples, or as close as reasonable within geological boundaries, are considered appropriate for the style of mineralisation being targeted. Historic drill holes were logged at level of detail to ensure sufficient geological understanding to allow



Criteria	JORC Code explanation	Commentary
		 representative selection of sample intervals. Sampling QAQC measures taken by WMC, Scotia Nickel and Breakaway 1996 – 2008 have not been documented. It is assumed that WMC, Scotia Nickel and Breakaway sample sizes were appropriate for the type, style and thickness of mineralisation tested.
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 analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established. 	 1996-1998 (WMC): ACTLABS analysis with mixed hydrofluoric acid digestion followed by ICP-OES analysis; 2002 - 2005 (Scotia Nickel): Genalysis modified nickel sulphide collection fire assay NIS-MS and AT/OES. 2006 - 2008 (Breakaway): Genalysis or Ultratrace mixed four acid digest followed by AT/OES analysis. Matrix and massive sulphides subjected were cast using a 12:22 flux (sodium nitrate) to form a glass bead (silicate fusion) followed by XRF analysis. Disseminated sulphides were subjected to four acid digested followed by AT/OES analysis. Disseminated sulphides were subjected to four acid digested followed by AT/OES analysis. Disseminated sulphides were subjected to four acid digested followed by AT/OES analysis. Pd, Pt and Au analysed by Pb collect fire assay. Nickel sulphide collection fire assay NIS-MS, AT/OES and Silicate Fusion XRF are considered the most appropriate methods for Ni determination. No other instruments outside of the ACTLABS/ Genalysis/ Ultratrace laboratories were used for analyses of 1996 - 2008 samples. It is assumed that industry standard commercial laboratory instruments were used by ACTLABS (WMC samples 1996-1998) and Genalysis/Ultratrace (Scotia Nickel samples 2002 – 2005 and Breakaway samples 2006-2008) to analyse historical drill samples from the Saints deposits. It is assumed that industry best practice was used by previous operators WMC and Scotia Nickel to ensure acceptable assay data accuracy and precision. Historical QAQC procedures are not recorded in available documents. 2006 – 2008 (Breakaway): QAQC procedures are not recorded in available documents, however approximately 1:20 commercially available base metal standards were inserted in the sampling schedule for diamond core samples which is



Criteria	JORC Code explanation	Commentary	
		documented in Breakaway drilling data files.	
Verification of sampling and assaying	 The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	 All historic drilling data including collar coordinates, hole orientation surveys, total depth, sampling intervals and lithological logging were collated from statutory annual reports and historic digital data files and verified by MEP's database manager. No indication of drill holes being twinned by previous workers has been observed or documented. It is assumed that industry best practice was used for collection, verification and storage of historic data. Historical drilling data from WMC, Scotia Nickel and Breakaway were compiled in a Microsoft Access database. No adjustments to assay data were undertaken. 	
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. Specification of the grid system used. Quality and adequacy of topographic control. 	 Historical drill collars were surveyed in AGD84 datum by WMC, Scotia Nickel and Breakaway Resources and converted to GDA94/MGA Zone 51 by Breakaway Resources in their Access drill hole database. 1996-1998 (WMC) drill collar data reliability and survey methodology are unspecified in the available annual reporting. Downhole surveying method unspecified. 2002-2005 (Scotia Nickel) drill collars were located by differential GPS relative to AGD84 datum. Downhole surveying by Eastman single- or north seeking gyro tool. 2006-2008 (Breakaway) drill collars were located using a handheld GPS relative to the AGD84 datum achieving ± 4 metre accuracy. Downhole surveying by Eastman single shot camera, Reflex tool and north-seeking gyro tool. All location data for the Mineral Resource were collected in AGD84 datum and transformed to GDA94 datum, MGA Zone 51. An approximate topographical surface covering the Saints area was created using collar data from Breakaway drill hole database that were accurately surveyed using a handheld GPS and/or differential GPS. 	
Data spacing and distribution	Data spacing for reporting of Exploration Results.	 1996-1998 (WMC): Typically sampled in 1-2 metre intervals, skipping intervals of no interest and increasing the frequency of sampling depending on 	



Criteria	JORC Code explanation	Commentary
	 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. 	 the geology observed in diamond drill core (smallest sample length 0.19m). 2002-2005 (Scotia Nickel): Typically sampled in 1-4 metre intervals, skipping intervals of no interest and increasing the frequency of sampling depending on the geology observed in diamond drill core (smallest sample length 0.2m). 2006-2008 (Breakaway Resources): Drilling typically sampled in 4 metre intervals from start of hole, increasing the sampling rate to every metre or to more detail depending on the geology observed in diamond drill core (smallest sample length 0.15m) Historically, data spacing of samples through the mineralised zone of 1m was typical, however when necessary smaller intervals were sampled where constrained by lithological boundaries or required in zones of interest. Drill data spacing of historic drill data (1996-2008) is sufficient to establish the degree of geological and grade continuity appropriate for estimating an Inferred Ni Resource. Samples were composited to 1 m lengths prior to Mineral Resource estimation. Drill hole spacing is predominantly 40m by 30m in the well-drilled portions of the deposit and is adequate to establish the degree of geological and grade continuity.
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. 	 Historical drill holes were oriented, as far as reasonably practical, to intersect the centre of the targeted mineralised zone perpendicular to the interpreted strike orientation of the mineralised zone. The geometry of drill holes relative to the mineralised zones achieves unbiased sampling of this deposit type. No orientation-based sampling bias has been identified.
Sample security	• The measures taken to ensure sample security.	 It is assumed that due care was taken historically with security of samples during field collection, transport and laboratory analysis. 1996 – 1998 (WMC): No location of drill samples or core is documented in historical annual reports. 2002 – 2005 (Scotia Nickel): Core drilled by Scotia Nickel is securely stored at Black Swan core



Criteria	JORC Code explanation	Commentary
		 storage facility. 2006 – 2008 (Breakaway): Drill samples and core are stored at MEP's Kalgoorlie -Boulder secure exploration yard. Remnant drill core, laboratory pulps and residues from both the core and RC samples have been permanently retained in secure storage containers.
Audits or reviews	 The results of any audits or reviews of sampling techniques and data. 	 No independent audit or review has been undertaken.



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. 	 The Saints Ni deposit is within M29/245, is held by Minotaur Gold Solutions Ltd (MinAuSol), a wholly owned subsidiary of Minotaur Exploration Ltd (ASX:MEP). Sandstorm Gold retains a 2.5% NSR on M29/245 in relation to all ores, mineral concentrates and other products containing nickel, copper and platinum group elements. There are no material issues with regard to access. The tenement is in good standing and no known impediments exist.
Exploration done by other parties	 Acknowledgment and appraisal of exploration by other parties. 	 Significant exploration drilling has been conducted previously by Western Mining Corporation (WMC), Scotia Nickel/LionOre and Breakaway Resources at the Saints Ni deposit, including AC, percussion/RC and diamond core drilling. Data collected by these entities has been reviewed in detail by MEP and has been used to support the Inferred Mineral Resource reported here.
Geology	 Deposit type, geological setting and style of mineralisation. 	• The Saints Ni deposit is regarded as an Archaean Kambalda-style komatiite-hosted massive nickel sulphide deposit. The deposit occurs within the Menzies-Bardoc tectonic zone in ultramafic units equivalent to the Highway Ultramafics.

Section 2: Reporting of Exploration Results



Criteria	JORC Code explanation	Commentary
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 hole length. If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. 	 No new exploration results are being reported. All drill hole information relevant to this resource report/statement has been included in the appendices. No relevant drill hole information has been excluded.
Data aggregation methods	 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. 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 values should be clearly stated. 	 Exploration results are not being reported. Not applicable as a Mineral Resource is being reported. Metal equivalent values have not been used.



Criteria	JORC Code explanation	Commentary
Relationship between mineralisation 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. 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'). 	 Most drill holes were angled to the east so that intersections are orthogonal to the orientation of mineralisation.
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. 	 Relevant diagrams have been included within the Mineral Resource report (main body of document).
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.	• Exploration results are not being reported, refer to Section 3.
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 substantive data exists.



Criteria	JORC Code explanation	Commentary
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. 	 MEP is currently reviewing the Saints Inferred Resource and the supporting drill data to determine if further drilling is warranted. If it is determined that additional drilling is required MEP will announce such plans in due course. Refer to diagrams in the body of text within the Mineral Resource report.



Criteria	JORC Code explanation	Commentary
Database integrity	 Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. Data validation procedures used. 	 Drill hole data used to estimate the Saints Inferred Resource have been captured in an Access database. Drill hole information within the Access database was validated against relevant historical annual reporting datasets submitted by WMC, Scotia Nickel and Breakaway to WAMEX. It is assumed that due care was taken historically with the process of transcribing data from field notes into digital format for statutory annual reporting. All assays were reported by laboratories in digital format reducing the likelihood of transcription errors. Vulcan software was used to create a surface topography wireframe from collar data which was used to support the Mineral Resource. Historic data has been verified by checking historical reports on the Saints nickel project. Validation was carried out during data import and by onscreen visual validation.
Site visits	 Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	 A site visit was not conducted by the Competent Person for Mineral Resources as the deposit has been estimated to an Inferred Mineral Resource confidence level. If the project advances to higher confidence levels, a site visit will be conducted at the time. Site has been visited by Glen Little, MEP's Exploration Manager and Competent Person for Exploration Results. A senior geologist for MEP has also visited site on numerous occasions.
Geologicial interpretation	 Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of 	 The confidence in the geological interpretation is considered to be good and is based on historical drilling, including diamond core. Historical geochemistry and geological logging has been used to assist identification of lithology and mineralisation. The deposit consists of WSW dipping lodes in three main zones i.e. Saint Patricks, Saint Andrews and Western Contact. The current interpretation is considered robust.

Section 3: Estimation and Reporting of Mineral Resources





Criteria	JORC Code explanation	Commentary
	 grade cutting or capping. The process of validation, the checking process used, the comparison of model data to drillhole data, and the use of reconciliation data if available. 	 select data and adjusted to account for the variations in lode orientations, however all other parameters were taken from the variography. Three passes were used. The first pass had a range of 60m, with a minimum of 4 samples. For the second pass, the range was 120m, with a minimum of 2 samples. For the third pass, the range was extended to 200m, with a minimum of 1 sample. A maximum of 20 samples was used for all three passes. No assumptions were made on selective mining units. Strong positive correlations exist between Ni and all the remaining elements apart from MgO. Nickel and MgO have a moderate negative correlation. The correlations are typical of komatiite hosted nickel sulphide deposits in WA. The deposit mineralisation was constrained by a cut-off grade of 0.5% Ni for low grade or disseminated sulphides and 1% Ni for higher grade or matrix/massive sulphides. The wireframes were applied as hard boundaries in the estimate. Statistical analysis was carried out on data from 13 lodes. The low coefficient of variation of Ni grades observed in the basic statistics for all domains suggested that no top cuts were necessary. Validation of the model included detailed comparison of composite grades and block grades by northing and elevation. Validation plots showed reasonable correlation between the composite grades and the block model grades.
Moisture	• Whether the tonnages are estimated on a dry basis or with natural moisture, and the determination of the moisture contents.	 Tonnages and grades were estimated on a dry in situ basis.
Cut-off parameters	 The basis of the adopted cut-off grade(s) or quality parameters applied. 	 The Statement of Mineral Resources has been constrained by the mineralisation solids and reported above a Ni cut-off grade of 1%. The cut-off grade was calculated based on the following parameters which are based on



Criteria	JORC Code explanation	Commentary
		 RPM internal cost pricing: Ni price of AUD\$13,000/t Mining cost of AUD\$75/t ore Processing costs of AUD\$35/t ore milled, and Processing recovery of 85% for a Ni concentrate.
Mining factors or assumptions	 Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made. 	• RPM has assumed that the deposit could potentially be mined using underground mining techniques with toll treatment of the ore at a third party concentrator. No assumptions have been made for mining dilution or mining widths.
Metallurgical factors or assumptions	• The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	 No metallurgical testing has been conducted on the Saints deposit. RPM assumes that the Saints material would be processed into a Ni concentrate, with processing recoveries of approximately 50% for oxide and 85% for transitional and fresh material.
Environmental factors or assumptions	 Assumptions made regarding possible waste and process residue disposal options It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage 	 MEP will work to mitigate environmental impacts as a result of any future mining or mineral processing.



Criteria	JORC Code explanation	Commentary
	the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	
Bulk density	 Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples. The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit. Discuss assumptions for bulk density estimates used in the evaluation process of the different materials. 	 A total of 1,605 density measurements, analysed using the water immersion technique, were taken from diamond drill core at the Saints deposit. It is assumed there are minimal void spaces in the rocks within the Saints deposit. Values applied in the Saints block model are similar to other known bulk densities from similar geological terrains. A regression equation between density and Fe was used to calculate bulk density in the block model for fresh mineralisation.
Classification	 The basis for the classification of the Mineral Resources into varying confidence categories. Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). Whether the result appropriately reflects the Competent Person's view of the deposit 	 The Mineral Resource estimate is reported here in compliance with the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' by the Joint Ore Reserves Committee (JORC The Mineral Resource was classified based on data quality, sample spacing, and lode continuity. The Saints deposit has been classified as Inferred Mineral Resource based on the predominant drill spacing of 40m by 30m. It is assumed that higher confidence levels could be obtained with future infill RC and diamond drilling, increased density measurements and preliminary metallurgical testing. The input data is comprehensive in its coverage of the mineralisation and does not favour or misrepresent in-situ mineralisation. The definition of mineralised zones is based



Criteria	JORC Code explanation	Commentary
		 on high level geological understanding producing a robust model of mineralised domains. Validation of the block model shows good correlation of the input data to the estimated grades. The Mineral Resource estimate appropriately reflects the view of the Competent Person.
Audits or reviews	• The results of any audits or reviews of Mineral Resource estimates.	 Internal audits have been completed by RPM which verified the technical inputs, methodology, parameters and results of the estimate.
Discussion of relative accuracy/ confidence	 Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate. The statement should specify whether it relates to global or local estimates, and, if local, state the relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. These statements of relative accuracy and confidence of the estimate and the procedures used. 	 The lode geometry and continuity has been adequately interpreted to reflect the applied level of Inferred Mineral Resource. The data quality is good and the drill holes have detailed geological logs. A recognised laboratory was used for all analyses. The Mineral Resource statement relates to global estimates of tonnes and grade. No check estimates or production data was available.