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ASX: NGX

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## Norseman Gold Plc

## **Exploration Report**

**Norseman Gold Plc (the Company)** (currently suspended on the ASX) is pleased to release the following exploration update.

## Highlights

- New interpretation of extensive historical database
- Resumption of 'greenfields' gold exploration after a near 20 year hiatus

For nearly 20 years under previous owners, there has been very little 'greenfields' gold exploration of the Company's extensive tenement holding at Norseman, WA. In the recent period there has been a renewed emphasis on exploration at Norseman. In conjunction, considerable effort has been expended on reviewing and reinterpreting the extensive historical data.

After an initial review of existing prospects the potential of the Harlequin area (see Operational Update announcement) and of shallow mineralisation in the Main field were selected for further evaluation as development targets.

In the Main field a study of the Mararoa reef in the area of the historical Butterfly Mine showed the potential for a small, shallow open cut. This provided encouragement to complete a costeaning program to locate reefs near surface. The reefs where sampled by the costeans are in the weathered zone where supergene enrichment as well as depletion means that grades are probably not representative of underlying, non-weathered reef. Costeaning also has the potential to locate new reefs including cross reefs. This work, consisting of costeaning and compilation of historical underground face sampling, is ongoing with the Northern Star/St Pats vein complex being assessed as the second area for a potential shallow open cut.

### Main field Open Pit Gold Project

A re-evaluation has shown that the Mararoa Reef system in the main Norseman goldfield and the 4.5 kilometre long network of underground mine workings surprisingly, given the long history, have not been effectively previously explored for shallow open pit positions. Studies are in progress modelling the Butterfly Mine using historic underground face sampling data. It is not possible to re-enter workings, much of which was completed in the 1930's, to validate this very old data by resampling. Other challenges include locating the information accurately using the old survey data. An open pit optimisation study based on this mixed-quality data has shown that there is potential for a shallow open pit along a 900 metre strike length of the Mararoa Reef. This preliminary study needs further work to verify, including drill testing, and it is important to note that it is difficult to quantify this type of resource due to the nuggetty nature of the mineralisation which results in a short range of influence of any sampling point. Similar studies will be completed to assess the viability of other shallow open pits along not only the Mararoa Reef but all of the extensive reef systems in the main Norseman goldfield. The main Norseman goldfield is held under mining licences M63/13, M63/14 and M63/15 held by CNGC and where underground mining continues.



Mainfields Project is focussed on the Mararoa Reef and the St Pats – Northern Star areas

An exploration costeaning program to locate the reefs at surface is ongoing. A program primarily consisting of a series of initial costeans on the surface to a depth of approximately 5 metres was devised. Following permitting, the first phase of the costeans was commenced at Butterfly/Brown's and Cumberland to test surface expressions of known historical ore bodies. While the full assay results have yet to be complied and analysed the preliminary outcome of these costeans is set out below.

The costeaning has been encouraging in that it has located reefs near surface. The veins exposed in the costeans are in the supergene zone where weathering processes result in gold enrichment and depletion layers around current and ancient water tables. It is interpreted that most costeans are above the water table and in the depleted zone. In addition most costeans are up plunge from low grade areas along the reef structures. So far no new high grade shoots have been located, although a reef split and veins that may prove to be leads into new reefs have been identified and require further testing.

Near-surface veins tested to date include those in the Butterfly and Cumberland areas. Initial intersections are being followed up with further costeans to test strike and grade continuity and potential repetitions. The primary phase of the costean program is expected to be completed by the end of April.

In the period to 31 January 2015, the Company has completed 52 costeans for a total of 1,721 linear metres and has intersected veining in 24 of these costeans. Costeans within the Butterfly area have intersected the Butterfly Lode which has demonstrated strike continuity over two intervals each in the order of 100 metres. Multiple mineralised narrow vein sets have been intersected in the Cumberland costeans.

Preliminary results include costeans which have intersected the mineralised structures within 5m of the surface. In some areas this extends mineralisation to surface while in other areas the historical workings reached surface.



Aerial photograph view showing the location of the Cumberland costeans.



Aerial photograph view showing interpreted Butterfly lode (green dotted line) and costean vein intersection points (blue circles)

Further costeans have been planned across the Mainfields area focussing on Northern Star/St Pats. A first pass of costeaning was carried out there in February and CNGC is awaiting the results in order to evaluate and assess what further work is required.

The program will then proceed to test the cross link structures at Bluebird before moving to the northern strike extent of the Mt Barker Reef (east of Northern Star).

There is also an intension to run a bulk sample of approximately 4,000 tonnes through the Phoenix Mill from selected locations in the next few months to assess grade.

Once the assay results have all been received, collated and analysed further information will be provided.



Map showing the planned location of the Northern Star/St Pats costeans testing surface extensions of underground mined mineralisation



Costeans at Northern Star/St Pats – Costean is near 3m deep. Quartz is near 0.5m thick



Norseman staff and visitors inspect costean at Northern Star/St Pats

## **Other Potential Gold Projects**

The Company has also reviewed several other potential projects to seek to identify additional sources of gold in addition to the near mine exploration targets set out in the Company's operational announcement and the Mainfields Project. These projects are at relatively early stages of evaluation and the internal reviews are ongoing. In summary, these potential gold projects are as follows:

- 1. Maybell open pit.
- 2. Cobbler open pit.

In addition, based on the current gold price and the Aus\$ exchange rate, internal reviews of existing tailings, stockpiles and dumps are underway to assess the current economic viability of further treatment. New processing techniques/methods and technologies are being researched. These reviews are incomplete.

No decisions have been made as to whether or when mining will commence in respect to any of these potential projects.



**Location of Potential Gold Projects** 

### **Nickel and other Base Metals**

More regional-scale assessments were completed and in addition to identifying gold targets highlighted the potential for nickel and base metal mineralisation within the Norseman tenements.

At Talbot Island existing hanging-wall disseminated nickel sulphide was further defined by RC drilling and a prospective basal contact located to the south of the disseminated zone by one diamond hole. While further testing of this prospective basal contact is planned, the main focus for most regional exploration in the near term, including nickel exploration, is expected to be the Polar Bear to Killaloe Hill area where there is potential for near coincident gold, nickel and base metal mineralisation. An initial phase of re-logging and re-sampling of diamond holes drilled in 2004-2005 by Nickel Australia at Polar Bear will lead to a phase of further drill testing using the improved models of mineralisation that result from this work. The potential of the area is further highlighted by exploration in leases adjoining Norseman's being undertaken by Sirius Resources NL. That company has traced the prospective basal contact at its Taipan nickel prospect on to Norseman's ground, which is only a little more than 1 kilometre to the south of the main Taipan prospect.

## **Drilling Results**

As previously reported, CNGC undertook an exploration drilling program focussing on gold and nickel during the period from 1 October 2014 to 31 January 2015 in relation to a number of targets referred to in this Report and the Company's Operations Report.

### Key Points

- Drill testing to explore mainly for gold but also for nickel and base metals re-commenced at the Norseman operations.
- Mainly RC (reverse circulation) with some diamond drilling has been completed at Cobbler, Harlequin (Leatherjacket), Killaloe Hill, Talbot Island, Jimberlana and Slippers prospects.
- Other evaluation of known prospects using the extensive existing exploration database is underway. This includes re-assessment of a number of advanced prospects and a study of the shallow open cut potential on the main field reef systems.
- At the Cobbler resource three infill RC drill holes drilled returned;

Drill hole ASRC001 – 7m @ 3.48g/t Au from 41m downhole Drill hole ASRC003 – 5m @ 4.56g/t Au from 34m downhole Drill hole ASRC004 – 5m @ 4.15g/t Au from 22m downhole

• RC drilling of the Leatherjacket vein in the Harlequin mine area returned further encouragement in one of six holes drilled in an area previously defined as anomalous by lake air core and underground drilling; Drill hole HARC012 –returned 11m @ 2.34 g/t Au in quartz reef from 63m downhole including 1m @ 16.7g/t Au from 64 to 65m.

• Encouraging base metal and gold results were received at Killaloe Hill where 13 holes were drilled and pulps recovered from storage and re-assayed for base metals for holes previously assayed only for gold. Results included;

On drill section 6,457,900m North hole KH84P returned 20m @ 0.7% Zn;

Re-assay of pulps from hole KH54P drilled in 1997 returned 15m at 2.01% Cu from 26 metres which included 3m at 5.54% Cu.

• Komatiite hosted nickel sulphide exploration commenced with drilling of 3 RC holes (one with a diamond tail) at Jimberlana and 4 RC holes and one diamond hole at Talbot Island. Previously identified disseminated nickel sulphide mineralization on Talbot Island consisting predominantly of millerite was further sampled by the RC drilling as well as the shallow section of a 342 metre deep stratigraphic diamond hole drilled to test a lower, interpreted basal contact.

All of the intervals shown and tabulated are down hole intervals and not true widths. The nature of RC drill hole sample being unsuitable for measuring or estimating true widths.



Location of exploration prospects mentioned in this release

## 1. Cobbler Open Pit Gold Resource

The Cobbler gold resource is located on Lake Cowan within CNGC mining licences M63/44 and M6/218. It is only 7 kilometres by road from the Norseman milling operations. It is covered by shallow lake mud which averages only 3 metres in depth and is accessible to the shore using an existing rock causeway.

Three RC holes were drilled to further infill a resource defined by previous drilling with results as shown below. The results were consistent with the previous interpretation. The Cobbler resource will be recalculated and verified with pit optimisation studies using the current gold price and this will be reported when completed;

		_	MGA								
	Hole	MGA North	East	RL	Dip	Azimuth	EOH	From	То	Length	Au
Hole ID	Туре	m	m	m	deg	deg	m	m	m	m	(ppm)
ASRC001	RC	6440780	382235	262	-60	90	57	40	48	8	3.08
ASRC003	RC	6440755	382230	263	-60	90	45	34	44	10	2.41
ASRC004	RC	6440750	382184	263	-65	90	51	22	28	6	3.50

Table 1: Cobbler Gold resource – significant gold intercepts

## 2. <u>Leatherjacket Gold Prospect</u>

The Leatherjacket prospect is within the Harlequin mining complex within CNGC mining licence M63/48 where open cut and underground mining has been undertaken since the late 1990's on multiple quartz veins. The Leatherjacket reef was identified by previous underground diamond and surface air core drilling. The recently drilled 6 holes were designed to trace the vein into the oxide zone where it is overlain by near 30 metres of Quaternary aged, transported sediments of Lake Cowan. It is relevant to note that the vein system at Harlequin is complex consisting not only of numerous vein orientations but it is common for veins to have pronounced changes in strike and dip along their length resulting in them being difficult to drill test and to trace. Despite only one of the six holes being successful the drilling has not definitively exhausted the potential of the area.

	Hole	MGA North	MGA East	RL	Dip	Azimuth	EOH	From	То	Length	Au
Hole ID	Туре	m	m	m	deg	deg	m	m	m	m	(ppm)
HARC012	RC	6445847	384861	262	-60	270	111	63	74	11	2.34
							Includes	64	65	1	16.70

Table 2: Leatherjacket Gold Prospect – significant gold intercept from recent drilling

#### 3. Killaloe Hill Prospect

At the Killaloe Hill Prospect, which is located on M63/116, 13 RC holes were drilled and a reevaluation of existing datasets undertaken. This work has identified the potential for strata-bound, hydrothermally derived base metal and gold mineralisation. A more than 2km in strike extent coincident copper, arsenic and gold anomaly occurs in -2mm soil sediment samples collected and assayed prior to 1997. The sampling grids range from 200 metres x 50 metres and wider to 50 metres x 50 metres spaced samples. Anomalous gold reaches 140ppb Au and copper reaches 345ppm while the main anomalies are defined by more than 20ppb Au and more than 100ppm copper. The prospect was previously tested as a gold target with some historic drilling encountering encouraging gold values. This historic drilling was in most cases not assayed for base metals. Some of the pulps from the historical drilling returned from laboratories and stored at Norseman were able to be located and were submitted for base metal assay. 630 pulps were located for near 30% of the previously drilled holes. One hole (KH54P) returned highly anomalous copper as a result of this assaying of pulps with 15 metres at 2.0% Cu returned including 3m at 5.54% Cu.

The hydrothermal system at Killaloe Hill is complex and the best way to portray the significant intercepts is to table the elements individually:

			MGA								
	Hole	MGA North	East	RL	Dip	Azimuth	EOH	From	То	Length	Au
Hole ID	Туре	m	m	m	m	m	m	m	m	m	(ppm)
KH76P	RC	6458705	393441	314	-60	180	120	66	67	1	0.56
KH77P	RC	6458659	393440	320	-60	180	110	70	71	1	0.71
KH78P	RC	6458717	393401	316	-60	180	123	64	66	2	1.18
KH79P	RC	6458682	393401	319	-60	180	120	9	12	3	0.61
								16	19	3	2.58
								65	70	5	1.45
								73	74	1	0.74
KH80P	RC	6458655	393401	319	-60	180	114	13	14	1	0.67
								69	70	1	8.10
KH81P	RC	6458719	393361	314	-60	180	117	58	60	2	0.72
								66	71	5	1.50
KH82P	RC	6458689	393358	313	-60	180	123	29	31	2	0.94
								55	56	1	0.56
								59	61	2	0.97
KH83P	RC	6458663	393360	314	-60	180	114	31	32	1	1.09
								60	69	9	0.76
KH84P	RC	6457906	394385	301	-90	0	153	39	40	1	0.56
Pulp											
Reassay											
KH54P	RC	6457906	394357	301	-60	270	70	24	25	1	1.48

Table 3: Killaloe Hill Prospect – significant gold intercepts

			MGA								
	Hole	MGA North	East	RL	Dip	Azimuth	EOH	From	То	Length	Cu
Hole ID	Туре	m	m	m	deg	deg	m	m	m	m	(ppm)
KH77P	RC	6458659	393440	320	-60	180	110	105	106	1	5190
KH79P	RC	6458682	393401	319	-60	180	120	90	94	4	8298
KH80P	RC	6458655	393401	319	-60	180	114	109	114	5	16700
KH81P	RC	6458719	393361	314	-60	180		91	101	10	7701
KH82P	RC	6458689	393358	313	-60	180	123	57	62	5	10388
								80	82	2	12730
								91	97	6	7392
KH83P	RC	6458663	393360	314	-60	180	114	85	86	1	5430
								94	96	2	6595
KH85P	RC	6457908	394444	301	-90	0	129	8	14	6	6562
Pulp											Cu
Reassay											(%)
KH54P	RC	6457906	394357	301	-60	270	70	26	41	15	2.01
							Includes	32	35	3	5.54

Table 4: Killaloe Hill Prospect – significant copper intercepts

Hole	Hole Type	MGA North m	MGA East m	RL m	Dip deg	Azimuth deg	EOH m	From m	To m	Length m	Zn (ppm)
KH84P	RC	6457906	394385	301	-90	0	153	121 122	121 139	3 17	8630 6396

Table 5: Killaloe Hill Prospect – significant zinc intercepts



Killaloe Hill coincident gold and copper soil anomalies

Yellow coloured gold shows above 20ppb gold. The dark orange outline shows more than 100ppm copper.



Killaloe Hill drill hole location plan

### 4. Nickel Sulphide exploration at the Talbot Island and Jimberlana Prospects

At the Talbot Island nickel sulphide prospect located on mining licence M63/265 the previously partly defined, outcropping disseminated nickel sulphide occurrence was further tested by four RC drill holes and one diamond drill hole. This sulphide was first identified in 1992 by geological survey mapping with subsequent studies and drill testing by CNGC and later by WMC and Nickel Australia. Mineralogy completed by CNGC during the 1990's established that the main sulphide is millerite. The diamond hole is yet to be assayed. The best intercepts from the RC holes, which are of similar tenor to previous drilling and which extend the strike extent of the disseminated zone, are shown tabulated below.

Hole	Hole	MGA North	MGAEast	RL	Dip	Azimuth	EOH	From	То	Length	Ni
ID	Туре	m	m	m	deg	deg	m	m	m	m	(ppm)
NAP001	RC	6452784	392355	270	-60	160	160	76	79	3	7740
								82	84	2	5955
NAP002	RC	6452771	392342	270	-60	210	123	46	48	2	6335
								52	61	9	10763
NAP003	RC	6452828	392230	264	-60	210	105	81	89	8	5891
								97	101	4	6858
NAP004	RC	6452842	392424	273	-60	160	148	67	76	9	5619
NAP007	RC	6450858	393485	273	-60	310	104	36	38	2	11000

## Table 6: Talbot Island Nickel Prospect – significant nickel intercepts

At Talbot Island a 342 metre diamond hole (NAP010D) was drilled as a stratigraphic hole, to further sample the disseminated zone and to test the interpreted basal contact position about 100 metre to the southeast of the island in the salt lake which is accessed via a 200 metre causeway. The hole drilled through a thick serpentenised ultramafic flow for 253 metres before encountering thin cherty sediments and basalts. Very minor visually identified nickel sulphides in infrequent carbonate veining near the contact zone at the base of the komatiite flow were confirmed qualitatively using an Olympus Delta hand-held XRF instrument. Assays are awaited and although not expected to be highly anomalous, the occurrence of nickel sulphide is evidence for the prospectively of the contact.

Importantly NAP010D successfully located the basal contact which, along its interpreted most favourable zone, has had no previous testing. Previous work completed by both CNGC and Nickel Australia included various types of geophysical EM and IP surveys with no obvious anomalies. However, the surveys are difficult to interpret due to surficial noise and may have been ineffective due to the salt lake environment. Future exploration will now focus on exploring for nickel sulphide orebodies by drill testing along some 800 metre strike extent of folded and highly prospective basal contact below thick channel facies ultramafic and the hanging-wall disseminated sulphide zone. The use of more powerful EM surveying systems to give better results in the lake environment will also be considered. Diamond hole NAP010D passed through this interpreted hanging-wall disseminated zone with minor sulphides visible. The hand-held XRF did not return nickel at anomalous levels through the disseminated zone which is partly obscured by a mafic intrusion, with laboratory assays awaited.



Talbot Island showing drilling, disseminated sulphide zone and interpreted prospective, untested basal contact

At the Jimberlana Prospect, which is 2.2 kilometres to the southeast of Talbot Island on the same ultramafic stratigraphy in mining licence M63/207, three RC holes (NAP005, NAP006 and NAP007), one (NAP007) with a diamond tail, were drilled. The holes failed to test an interpreted ultramafic contact due to the presence of a swarm of mafic intrusions. A best intersection of 2 metres at 1.1% nickel was returned from lateritic material developed on weathered ultramafic in hole NAP007. The holes were targeted using datasets from previous exploration.

			MGA								
Hole	Hole	MGA North	East	RL	Dip	Azimuth	EOH	From	То	Length	Ni
ID	Туре	m	m	m	deg	deg	m	m	m	m	(ppm)
NAP007	RC	6450858	393485	273	-60	310	104	36	38	2	11000

Table 7: Jimberlana Nickel Prospect – significant nickel intercepts

## Planned Drilling Program

Exploration has devised a broad drilling program for the next 3 to 6 months. This program is dependent on a number of factors and is subject to review based on interim assay results, permitting and availability of resources.

## Mainfield Project

Drilling is planned to test the upper parts of the historical Butterfly mine in order to further assess a possible open cut. This drilling will be extended to the north to test the Phoenix ore shoot.

Drill testing, depending on the results of costeaning and bulk sampling as well as ore body modelling, will be completed to further assess the Northern Star/St Pats area for a possible open cut.

A few drill holes will be planned to test a spur off the Mararoa Reef near the All Nations Shaft which was recently located by costeaning.

• Polar Bear – Kiillaloe Hill

Following compilation and re-logging of existing drill holes, mainly completed by Nickel Australia in 2004-2005 in the Polar Bear area, drilling is intended to test near coincident gold, nickel and base metal targets. Holes will be drilled at the North Leeder's Prospect in order to trace and better define a known mineralised system. Results of exploration being completed nearby by Sirius will be used to plan holes. The drilling is likely to include testing of existing EM anomalies which will be used to assess the usefulness of more modern EM surveying techniques.

A few holes will be completed at Killaloe Hill which is in a similar geological setting using the ideas generated by the Polar Bear hole re-logging work.

• Noganyer Formation

Depending on progress made compiling drilling, geochemical and geophysical datasets along the Noganyer Formation, holes are planned to test mainly gold targets, some with coincident base metal (copper) potential.

Depending on Native Title progress some drilling will be considered at Lady Miller.

• On Lake

A regional-scale, widely spaced but structurally targeted, lake drilling aircore program is being planned.

Two on-lake drill holes are initially proposed to further test the basal contact at Talbot Island.

On-lake drilling capability will lead to some existing anomalies being re-assessed and a few holes completed to test specific targets.

• Other Possible Drilling

Compilation and reassessment of the extensive existing datasets is currently underway and lead to the generation of new targets. Some currently identified miscellaneous areas include:

- a. a second drill hole may be drilled at Maybell depending on the results of assaying of a recently completed hole; and
- b. compilation at the North Royal may lead to recommending drill testing of a further pit cut-back.

## Competent Persons Statement

The information in this report which relates to Exploration Results is based on information compiled by Mr Noel Archer, Consulting Geologist, who is a Fellow of the Australasian Institute of Mining and Metallurgy, a Fellow of the Australian Institute of Geoscientists and a Fellow of the Society of Economic Geologists. Mr Archer has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which 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' (The JORC Code). Mr Archer consents to the inclusion in this announcement of the statements based on this information in the form and context in which it appears.

# **APPENDIX 1**

(a) Table of gold intercepts – Cobbler Prospect (MGA grid - zone 51)

Hole ID	Hole Type	MGA North m	MGA East m	RL m	Dip deg	Azimuth deg	EOH m	From m	To m	Length m	Au (ppm)
ASRC001	RC	6440781	382235	262	-60	90	57	40	48	8	3.08
							Includes	41	42	1	1.24
							And	43	44	1	14.15
							And	44	45	1	6.30
							And	46	47	1	1.28
ASRC003	RC	6440755	382230	263	-60	90	45	34	44	10	2.41
							Includes	34	35	1	3.91
							And	35	36	1	8.63
							And	36	37	1	4.93
							And	37	38	1	4.24
							And	38	39	1	1.09
ASRC004	RC	6440750	382184	263	-65	90	51	22	28	6	3.50
							Includes	22	23	1	1.88
							And	23	24	1	4.11
							And	24	25	1	12.00
							And	25	26	1	2.11
								33	39	6	1.78
							Includes	33	34	1	3.34
							And	34	35	1	2.09
							And	35	36	1	3.54

# **APPENDIX 1 - Continued**

(b) Table of gold intercepts – Harlequin – Leatherjacket Prospect (MGA grid - zone 51)

Hole ID	Hole Type	MGA North m	MGA East m	RL m	Dip deg	Azimuth deg	EOH m	From m	To m	Length m	Au (ppm)
HARC012	RC	6445847	384861	262	-60	270	111	45	46	1	0.23
								63	74	11	2.34
							Includes	63	64	1	1.83
							And	64	65	1	16.70
							And	65	66	1	1.62
							And	68	69	1	1.13
							And	72	73	1	1.91
								80	84	4	0.42
								89	90	1	2.27
HARC013	RC	6445847	384881	262	-60	270	117	101	105	4	0.61
							Includes	101	102	1	1.08
								110	111	1	0.26
HARC014	RC	6445887	384858	263	-60	270	77	48	49	1	1.06
								54	55	1	0.28
								58	61	3	0.43
								68	69	1	0.37
								75	76	1	0.24
HARC015	RC	6445887	384878	262	-60	270	90	44	48	4	0.40
								53	54	1	0.76
								66	67	1	0.26
								73	75	2	0.60
HARC016	RC	6445927	384857	262	-60	270	110	45	49	4	0.41
								53	60	7	0.45
							Includes	58	59	1	1.27
								64	65	1	1.22

Hole ID	Hole Type	MGA North m	MGA East m	RL m	Dip deg	Azimuth deg	EOH m	From m	To m	Length m	Au (ppm)
								69	76	7	0.33
								78	82	4	0.28
								84	92	8	0.80
							Includes	86	87	1	3.38
							And	91	92	1	1.08
								99	100	1	0.38
								105	110	5	0.29
HARC017	RC	6445927	384876	262	-60	270	96	64	65	1	0.30
								71	72	1	0.33

APPENDIX 1 - Continued Table of gold intercepts – Killaloe Hill Prospect (MGA Grid - zone 51)

Hole	Hole	MGA North	MGA East	RL	Dip	Azimuth	EOH	From	То	Length	Au
ID	Туре	m	m	m	deg	deg	m	m	m	m	(ppm)
KH76P	RC	6458705	393441	314	-60	180	120	1	2	1	0.31
								66	67	1	0.56
KH77P	RC	6458659	393440	320	-60	180	110	70	75	5	0.43
KH78P	RC	6458717	393401	316	-60	180	123	30	31	1	0.32
								60	68	8	0.50
							Includes	64	65	1	1.78
KH79P	RC	6458682	393401	319	-60	180	120	9	19	10	1.06
							Includes	16	17	1	1.70
							And	17	18	1	5.52
								23	24	1	0.24
								65	75	10	0.94
							Includes	65	66	1	1.83
							And	66	67	1	3.04
							And	69	70	1	1.07
KH80P	RC	6458655	393401	319	-60	180	114	13	15	2	0.45
								67	72	5	1.78
							Includes	69	70	1	8.10
KH81P	RC	6458719	393361	314	-60	180	117	46	47	1	0.39
								52	53	1	0.45
								57	62	5	0.45
								66	72	6	1.30
							Includes	66	67	1	2.44
							And	67	68	1	1.43
							And	69	70	1	2.01
							And	70	71	1	1.10
								74	77	3	0.23
KH82P	RC	6458689	393358	313	-60	180	123	29	31	2	0.94
							Includes	29	30	1	1.29
								55	57	2	0.49
								59	61	2	0.97
							Includes	59	60	1	1.03
KH83P	RC	6458663	393360	314	-60	180	114	31	32	1	1.09
								43	44	1	0.41
								60	70	10	0.72
							Includes	65	66	1	1.39
							And	66	67	1	1.15
KH84P	RC	6457906	394385	301	-90	0	153	17	19	2	0.25
								39	40	1	0.56
KH85P	RC	6457908	394444	301	-90	0	129	10	11	1	0.32

# **APPENDIX 1 - Continued**

Table of gold intercepts – Talbot Island Nickel Prospect (MGA Grid - zone 51)

Hole ID	Hole Type	MGA North m	MGA East m	RL m	Dip deg	Azimuth deg	EOH m	From m	To m	Length m	Au (ppm)
NAP001	RC	6452784	392355	270	-60	160	160	78	79	1	0.28
NAP002	RC	6452771	392342	270	-60	210	123	46	50	4	0.26
								52	53	1	0.66
								67	68	1	0.39

# **APPENDIX 1 - Continued**

Table of gold intercepts – Princess Royal - Slippers Prospect (MGA Grid - zone 51)

Hole ID	Hole Type	MGA North m	MGA East m	RL m	Dip deg	Azimuth deg	EOH m	From m	To m	Length m	Au (ppm)
SLIP01	RC	6443823	387579	300			63	0	32	32	0.37
							Includes	5	6	1	1.69
							And	24	25	1	1.20
								43	50	7	0.41
SLIP02	RC	6443833	387565	299			63	4	5	1	0.38
								8	9	1	0.28
								27	28	1	0.25
								32	39	7	0.49
							Includes	37	38	1	1.58
								50	51	1	0.21
SLIP03	RC	6443863	387564	298			57	32	33	1	0.27
SLIP05	RC	6443880	387553	297			45	18	19	1	0.38
								22	23	1	0.29
								27	32	5	0.22

# **APPENDIX 1 - Continued**

Table of copper intercepts – Killaloe Hill Prospect (MGA Grid – zone 51)

Hole ID	Hole Type	MGA North m	MGA East m	RL m	Dip deg	Azimuth deg	EOH m	From m	To m	Length m	Cu (ppm)
KH77P	RC	6458659	393440	320	-60	180	110	105	106	1	5190
KH79P	RC	6458682	393401	319	-60	180	120	90	94	4	8298
							Includes	90	91	1	11400
							And	91	92	1	7460
							And	92	93	1	7890
							And	93	94	1	6440
KH80P	RC	6458655	393401	319	-60	180	114	109	114	5	16700
							Includes	109	110	1	22400
							And	110	111	1	12250
							And	111	112	1	14900
							And	112	113	1	19700
							And	113	114	1	14250
KH81P	RC	6458719	393361	314	-60	180	117	91	101	10	7701
							Includes	91	92	1	5760
							And	93	94	1	7250
							And	94	95	1	15500
							And	95	96	1	9750
							And	96	97	1	9680
							And	98	99	1	5170
							And	99	100	1	8390

Hole ID	Hole Type	MGA North m	MGA East m	RL m	Dip deg	Azimuth deg	EOH m	From m	To m	Length m	Cu (ppm)
							And	100	101	1	7070
KH82P	RC	6458689	393358	313	-60	180	123	57	62	5	10388
							Includes	57	58	1	6320
							And	58	59	1	11150
							And	59	60	1	14500
							And	60	61	1	11150
							And	61	62	1	8820
								80	82	2	12730
							Includes	80	81	1	7860
							And	81	82	1	17600
								91	97	6	7392
							Includes	91	92	1	6750
							And	92	93	1	8450
							And	93	94	1	6550
							And	95	96	1	8050
							And	96	97	1	11400
KH83P	RC	6458663	393360	314	-60	180	114	85	86	1	5430
								94	96	2	6595
							Includes	94	95	1	7200
							And	95	96	1	5990
KH85P	RC	6457908	394444	301	-90	0	129	8	14	6	6562
							Includes	8	9	1	5050
							And	9	10	1	7910
							And	10	11	1	7260
							And	11	12	1	7410
							And	12	13	1	6710
							And	13	14	1	5030

**APPENDIX 1 - Continued** Table of zinc intercepts –Killaloe Hill Prospect (MGA grid – zone 51)

	Hole	MGA North	MGA East	RL	Dip	Azimuth	EOH	From	То	Lenath	Zn
Hole ID	Туре	m	m	m	deg	deg	m	m	m	m	(ppm)
KH76P	RC	6458705	393441	314	-60	180	120	64	65	1	581
								122	123	1	526
KH77P	RC	6458659	393440	320	-60	180	110	59	60	1	746
								65	71	6	631
							Includes	65	66	1	521
							And	66	67	1	761
							And	67	68	1	687
							And	68	69	1	743
							And	70	71	1	578
								75	79	4	576.5
							Includes	75	76	1	531
							And	76	77	1	556
							And	77	78	1	699
							And	78	79	1	520
KH78P	RC	6458717	393401	316	-60	180	123	52	53	1	515
								60	68	8	828
							Includes	60	61	1	687
							And	61	62	1	855
							And	62	63	1	1015

		MGA	MGA								
	Hole	North	East	RL	Dip	Azimuth	EOH	From	То	Length	Zn
Hole ID	Туре	m	m	m	deg	deg	m	m	m	m	(ppm)
							And	63	64	1	622
							And	64	65	1	1125
							And	65	66	1	602
							And	66	67	1	800
							And	67	68	1	921
							7	117	118	1	699
								128	120	1	800
	PC	6458682	303401	310	60	190	120	66	72	7	720
KH/9F	RU	0430002	393401	319	-00	100	120	66	67	1	129
				-			Includes	00	07	1	714
							And	67	68	1	711
							And	68	69	1	567
							And	71	72	1	602
							And	72	73	1	995
KH80P	RC	6458655	393401	319	-60	180	114	49	50	1	521
								59	78	19	716
							Includes	59	60	1	535
							And	60	61	1	668
							And	61	62	1	647
							And	62	63	1	595
							And	63	64	1	673
							And	64	65	1	537
							And	65	66	1	764
							And	66	67	1	003
							And	67	60	1	702
							And	69	60	1	793
							And	00	09	1	707
							And	69	70	1	/15
							And	70	/1	1	1170
							And	71	72	1	704
							And	72	73	1	574
							And	74	75	1	643
							And	75	76	1	822
							And	76	77	1	831
							And	77	78	1	752
								84	85	1	560
KH82P	RC	6458689	393358	313	-60	180	123	57	65	8	937.4
							Includes	57	58	1	659
							And	58	59	1	704
							And	59	60	1	951
							And	60	61	1	899
	1						And	61	62	1	1125
							And	62	62	1	1075
							And	62	64	1	1170
							And	64	65	1	706
							And	04	00	1	700
								68	09	- 1 -	563
								124	129	5	1601.4
							Includes	124	125	1	555
							And	125	126	1	1970
							And	126	127	1	2620
							And	127	128	1	1930
							And	128	129	1	932
KH83P	RC	6458663	393360	314	-60	180	114	50	54	4	535
							Includes	50	51	1	663
							And	53	54	1	652
	1							58	59	1	626
	İ			1				72	73	1	507
KH84P	RC	6457906	394385	301	-90	0	153	2	10	8	2138.75

		MGA	MGA								
	Hole	North	East	RL	Dip	Azimuth	EOH	From	То	Length	Zn
Hole ID	Туре	m	m	m	deg	deg	m	m	m	m	(ppm)
							Includes	2	3	1	1255
							And	3	4	1	2040
							And	4	5	1	2120
							And	5	6	1	2700
							And	5	7	1	2700
							Ana	6	/	1	4130
							And	7	8	1	1745
							And	8	9	1	1760
							And	9	10	1	1360
								17	19	2	880
							Includes	17	18	1	664
							And	18	10	1	1095
							7 11 10	33	30	6	760
							Includes	33	39	1	709 500
							Includes	33	34	1	502
							And	34	35	1	1000
							And	35	36	1	632
							And	36	37	1	1115
							And	37	38	1	728
							And	38	39	1	634
								66	67	1	628
								99	121	22	2693
							Includes	00	100	1	502
							And	100	100	1	592
							And	100	101	1	606
							And	101	102	1	647
							And	102	103	1	581
							And	103	104	1	658
							And	104	105	1	999
							And	105	106	1	1130
							And	106	107	1	1690
							And	107	108	1	2340
							And	108	100	1	2120
							And	100	110	1	2120
							And	109	110	1	2210
							And	110	111	1	1490
							And	111	112	1	3450
							And	112	113	1	828
							And	113	114	1	3330
							And	114	115	1	3470
							And	115	116	1	1530
							And	116	117	1	3060
				1			And	117	118	1	2570
	1		1	İ — —	1	1	And	118	119	1	9980
							And	110	120	1	7700
							And	120	121	1	8180
				<u> </u>			Allu	120	121	1	0100
							1 . 1 . 1	122	139	17	0390
							Includes	122	123	1	3280
							And	123	124	1	5130
							And	124	125	1	1580
							And	125	126	1	5310
							And	126	127	1	7000
							And	127	128	1	7400
				1			And	128	129	1	6360
							And	120	130	1	6870
							And	120	101	1	8670
							And	130	101	1	7770
							Ana	131	132	1	///0
							And	132	133	1	//30
				L			And	133	134	1	6110
				1			And	134	135	1	9800

		MGA	MGA								
	Hole	North	East	RL	Dip	Azimuth	EOH	From	То	Length	Zn
Hole ID	Туре	m	m	m	deg	deg	m	m	m	m	(ppm)
							And	135	136	1	5500
							And	136	137	1	9790
							And	137	138	1	4800
							And	138	139	1	5630
								140	152	12	1959
							Includes	140	141	1	3780
							And	141	142	1	1465
							And	142	143	1	595
							And	143	144	1	935
							And	144	145	1	4510
							And	145	146	1	2800
							And	146	147	1	3720
							And	147	148	1	1515
							And	140	140	1	1005
							And	140	149	1	520
							And	149	150	1	2220
	DC	0457000	204444	201	00	0	A//0	101	152	1	2330
KH85P	RU	6457908	394444	301	-90	0	129	13	15	2	0/3
							Includes	13	14	1	/34
							And	14	15	1	612
								32	36	4	848
							Includes	32	33	1	666
							And	34	35	1	1235
							And	35	36	1	1080
								50	62	12	750
							Includes	50	51	1	574
							And	52	53	1	1200
							And	53	54	1	1030
							And	54	55	1	1210
							And	55	56	1	1310
							And	56	57	1	776
							And	58	59	1	616
							And	59	60	1	707
							And	61	62	1	527
								88	89	1	762
								96	111	15	888
							Includes	96	97	1	659
							And	97	98	1	1320
							And	98	99	1	1835
				l			And	99	100	1	733
							And	100	101	1	619
							And	101	102	1	717
				1			And	102	103	1	575
							And	103	104	1	722
							And	104	105	1	825
							And	105	106	1	1420
							And	105	100	1	021
							And	100	107	1	060
							And	107	100	1	900
							And	100	109	1	00 I
							And	109	110	1	520 505
							Ana	110	111	1	505
							1. 1. 1	114	129	15	2122
							Includes	114	115	1	1120
							And	117	118	1	590
							And	119	120	1	1375
							And	120	121	1	3020
				1	1		And	121	122	1	4020

Hole ID	Hole	MGA North	MGA East	RL	Dip	Azimuth	EOH	From	To	Length	Zn (nnm)
TIOLE ID	туре				ueg	ueg	And	122	122	1	(ppiii) 2170
							And	122	123	1	696
							And	125	126	1	1265
							And	126	127	1	3030
							And	127	128	1	6270
							And	128	129	1	5740
KH86P	RC	6457904	394503	298	-90	0	135	1	9	8	1643
							Includes	1	2	1	3890
							And	2	3	1	1450
							And	3	4	1	1260
							And	4	5	1	1850
							And	5	6	1	1880
							And	6	7	1	743
							And	7	8	1	1150
							And	8	9	1	920
								32	33	1	656
								68	69	1	506
								75	76	1	1070
								100	131	31	1485
							Includes	100	101	1	1560
							And	101	102	1	1560
							And	102	103	1	765
							And	103	104	1	533
							And	104	105	1	611
							And	105	106	1	1100
							And	106	107	1	1340
							And	107	108	1	1680
							And	108	109	1	961
							And	109	110	1	2460
							And	110	111	1	747
							And	111	112	1	1440
							And	112	113	1	2450
							And	113	114	1	3480
							And	114	115	1	2620
							And	115	116	1	848
							And	118	119	1	527
							And	119	120	1	1170
							And	120	121	1	1970
							And	121	122	1	2910
							And	122	123	1	1220
							And	123	124	1	2320
							And	124	125	1	3290
							And	125	126	1	1540
							And	126	127	1	935
							And	128	129	1	902
							And	129	130	1	2600
					1		And	130	131	1	1220

**APPENDIX 1 - Continued** Table of nickel intercepts –Talbot Island and Jimberlana Prospects (MGA grid – zone 51)

		MGA	MGA								
	Hole	North	East	RL	Dip	Azimuth	EOH	From	то	Longth	Ni (nnm)
NAP001	PC	6452794	202255	270	ueg en	160	160	76	70	2	(ppiii) 7740
NAFUUT	RC	0452704	392300	210	-00	100	Includes	76	77	1	7600
							And	70	78	1	8800
				ł – –			And	78	70	1	6820
				ł – –			And	82	84	2	5955
							Includes	82	83	1	6350
							And	83	84	1	5560
NAP002	RC	6452771	392342	270	-60	210	123	46	48	2	6335
		0402771	002042	210	-00	210	Includes	46	47	1	6870
							And	40	48	1	5800
							And	52	61	9	10763
							Includes	52	53	1	8350
							And	53	54	1	17000
							And	54	55	1	15600
							And	55	56	1	5100
				1			And	56	57	1	7330
							And	57	58	1	5340
							And	58	59	1	10200
							And	59	60	1	14850
							And	60	61	1	13100
NAP003	RC	6452828	392230	264	-60	210	105	81	89	8	5891
							Includes	81	82	1	6120
							And	82	83	1	5840
							And	83	84	1	7730
							And	85	86	1	6350
							And	86	87	1	6270
							And	88	89	1	5210
								97	101	4	6858
							Includes	97	98	1	7310
							And	98	99	1	10700
							And	100	101	1	5370
NAP004	RC	6452842	392424	273	-60	160	148	67	76	9	5619
							Includes	67	68	1	7650
							And	68	69	1	7520
							And	69	70	1	9400
							And	72	73	1	6570
							And	74	75	1	6100
							And	75	76	1	8740
NAP007	RC	6450858	393485	273	-60	310	104	36	38	2	11000
							Includes	36	37	1	8950
							And	37	38	1	13050

# **APPENDIX 1 - Continued**

Table of locations for all holes drilled from July 2014 (MGA grid – zone 51). Holes listed here and not included in the summary tables above have no significant results except for ASRC005 at Cobbler which was not assayed.

HoleID	MGANorth	MGAEast	MGARL	Max_depth	Dip	Azimuth	HoleType	Prospect
ASRC001	6440781	382235	262.5	57	-60	90	RC	COBBLER
ASRC002	6440755	382250	262.2	15	-60	90	RC	COBBLER
ASRC003	6440755	382230	262.5	45	-60	90	RC	COBBLER
ASRC004	6440750	382184	262.7	51	-60	90	RC	COBBLER
ASRC005	6440655	382169	262.6	68	-60	90	RC	COBBLER
HARC012	6445847	384861	262.4	111	-60	270	RC	Leatherjacket
HARC013	6445847	384881	262.3	117	-60	270	RC	Leatherjacket
HARC014	6445887	384858	262.5	77	-60	270	RC	Leatherjacket
HARC015	6445887	384878	262.5	90	-60	270	RC	Leatherjacket
HARC016	6445927	384857	262.4	110	-60	270	RC	Leatherjacket
HARC017	6445927	384876	262.5	96	-60	270	RC	Leatherjacket
KH76P	6458705	393441	314.1	120	-60	180	RC	KILLALOE
KH77P	6458659	393440	319.9	110	-60	180	RC	KILLALOE
KH78P	6458717	393401	315.9	123	-60	180	RC	KILLALOE
КН79Р	6458682	393401	318.6	120	-60	180	RC	KILLALOE
KH80P	6458655	393401	319.4	114	-60	180	RC	KILLALOE
KH81P	6458719	393361	314.1	117	-60	180	RC	KILLALOE
KH82P	6458689	393358	313.2	123	-60	180	RC	KILLALOE
КН83Р	6458663	393360	314.5	114	-60	180	RC	KILLALOE
KH84P	6457906	394385	301.1	153	-90	0	RC	KILLALOE
KH85P	6457908	394444	300.6	129	-90	0	RC	KILLALOE
KH86P	6457904	394503	297.9	135	-90	0	RC	KILLALOE
КН90Р	6458400	393693	314.6	150	-90	0	RC	KILLALOE
KH91P	6458505	393531	309.8	140	-90	0	RC	KILLALOE
NAP001	6452784	392355	270.2	160	-60	162	RC	TALBOT ISLAND
NAP002	6452771	392342	269.6	123	-60	126	RC	TALBOT ISLAND
NAP003	6452828	392230	264.5	105	-60	200	RC	TALBOT ISLAND
NAP004	6452842	392424	272.6	148	-60	160	RC	TALBOT ISLAND
NAP005	6450744	393695	275.8	103	-60	290	RC	JIMBERLANA
NAP006	6450816	393630	275.0	102	-60	130	RC	JIMBERLANA
NAP007	6450858	393485	272.8	104	-60	146	RC	JIMBERLANA
NAP010D	6453791	392387	271.4	342	-50	140	Diamond	TALBOT ISLAND
SLIP01	6443823	387579	299.7	63	-60	265	RC	SLIPPERS
SLIP02	6443833	387565	299.0	63	-60	265	RC	SLIPPERS
SLIP03	6443863	387564	298.0	57	-50	256	RC	SLIPPERS
SLIP04	6443862	387583	298.6	63	-50	270	RC	SLIPPERS
SLIP05	6443880	387553	296.8	45	-60	270	RC	SLIPPERS

# JORC Code, 2012 Edition – Table 1 report template

# **Section 1 Sampling Techniques and Data**

(Criteria in this section apply to all succeeding sections.)

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 base metal and gold anomalous mineralisation trend at Killaloe Hill is sampled by 13 recently drilled RC holes (8 holes are oriented south and 5 holes are vertical). There are 35 previous hoes also drilled within the anomaly mainly assayed for gold only. The narrow vein Au mineralisation at Leatherjacket is sampled by 6 recent RC holes drilled towards the west. Previously drilled holes exist including holes drilled from underground workings. The narrow vein Au mineralisation at Slippers was sampled by 5 RC holes oriented towards the west. The area was previously mined by a small open cut and the holes were to test for possible extensions and remnant ore. The shear hosted Au mineralisation at Cobbler drilled in order to better define an existing resource was sampled by 4 RC holes oriented towards the east and one vertical RC hole. The disseminated Ni mineralisation at Talbot Island was sampled by 4 RC holes in the area. One diamond hole was drilled towards the SSE to a depth of 342m in order to sample disseminated sulphide on the island and it extended to test an interpreted basal contact for massive nickel sulphide approximately 100m to the south of the island. 3 RC holes oriented WNW and SSE were drilled at Jimberlana Station to test for massive Ni sulphide accumulations. There are previously drilled holes in this area.</li> <li>Niton and Olympus Delta hand-held XRFs were used to qualitatively screen drill core and RC rock chips mainly to check for anomalous base metals. XRF units were calibrated using blanks and standards</li> </ul>

<ul> <li>and previously assayed intervals of diamond core were used to compare results in order to check order of magnitude, qualitative representitivity.</li> <li>The drill hole collars are picked up by differential GPS which has an accuracy of less than 0.3m. Drill samples were logged and data recorded for lithology, alteration, veining, mineralisation, weathering and wetness contamination. Sampling was carried out under CNGC protocols and QAQC procedures.</li> <li>All Reverse Circulation drilling is sampled and assayed every metre with sample weights averaging approximately 3kg.</li> <li>Most exploration samples were assayed by the commercial ALS laboratory in Kalgoorlie. A few samples, including those near operating mines and where high grades are expected and needed for production reasons are assayed at Norseman Gold's in-house laboratory. Quality control systems are in place and assaying completed using an Atomic Absorption Spectrometer (AAS). CNGC QAQC protocols induce the laboratory analysis of at least 5% of all samples independent of laboratory QAQC procedures.</li> <li>Cobbler samples were crushed, split and pulverized to produce a 850g sub sample with 50g selected for Aqua Regia digest and fire assayed with an AAS finish.</li> <li>Killaloe Hill and Leatherjacket samples were crushed, dried, split and pulverized to produce a mersion and assayed by 1CP mass</li> </ul>	Criteria	JORC Code explanation	Commentary
<ul> <li>The drill hole collars are picked up by differential GPS which has an accuracy of less than 0.3m. Drill samples were logged and data recorded for lithology, alteration, veining, mineralisation, weathering and wetness contamination. Sampling was carried out under CNGC protocols and QAQC procedures.</li> <li>All Reverse Circulation drilling is sampled and assayed every metre with sample weights averaging approximately 3kg.</li> <li>Most exploration samples were assayed by the commercial ALS laboratory in Kalgoorlie. A few samples, including those near operating mines and where high grades are expected and needed for production reasons are assayed at Norseman Gold's in-house laboratory. Quality control systems are in place and assaying completed using an Atomic Absorption Spectrometer (AAS). CNGC QAQC protocols include the laboratory analysis of at least 5% of all samples independent of laboratory QAQC procedures.</li> <li>Cobbler samples were crushed, split and pulverized to produce a 850g sub sample with 50g selected for Aqua Regia digest and fire assayed with an AAS finish.</li> <li>Killaloe Hill and Leatherjacket samples were crushed, dried, split and pulverized to produce a representative 250g sub sample with 50g</li> </ul>			and previously assayed intervals of diamond core were used to compare results in order to check order of magnitude, qualitative representitivity.
<ul> <li>All Reverse Circulation drilling is sampled and assayed every metre with sample weights averaging approximately 3kg.</li> <li>Most exploration samples were assayed by the commercial ALS laboratory in Kalgoorlie. A few samples, including those near operating mines and where high grades are expected and needed for production reasons are assayed at Norseman Gold's in-house laboratory. Quality control systems are in place and assaying completed using an Atomic Absorption Spectrometer (AAS). CNGC QAQC protocols include the laboratory analysis of at least 5% of all samples independent of laboratory QAQC procedures.</li> <li>Cobbler samples were crushed, split and pulverized to produce a 850g sub sample with 50g selected for Aqua Regia digest and fire assayed with an AAS finish.</li> <li>Killaloe Hill and Leatherjacket samples were crushed, dried, split and pulverized to produce a representative 250g sub sample with 50g selected for Aqua Regia digest and pulverized to produce a representative 250g sub sample with 50g selected for Aqua Regia digest and pulverized to produce a representative 250g sub sample with 50g selected for Aqua Regia digest and pulverized to produce a representative 250g sub sample with 50g selected for Aqua Regia digest and pulverized to produce a representative 250g sub sample with 50g selected for Aqua Regia digest and pulverized to produce a representative 250g sub sample with 50g selected for Aqua Regia digest and pulverized to produce a representative 250g sub sample with 50g selected for Aqua Regia digest and assayed by ICP mass</li> </ul>			• The drill hole collars are picked up by differential GPS which has an accuracy of less than 0.3m. Drill samples were logged and data recorded for lithology, alteration, veining, mineralisation, weathering and wetness contamination. Sampling was carried out under CNGC protocols and QAQC procedures.
<ul> <li>Most exploration samples were assayed by the commercial ALS laboratory in Kalgoorlie. A few samples, including those near operating mines and where high grades are expected and needed for production reasons are assayed at Norseman Gold's in-house laboratory. Quality control systems are in place and assaying completed using an Atomic Absorption Spectrometer (AAS). CNGC QAQC protocols include the laboratory analysis of at least 5% of all samples independent of laboratory QAQC procedures.</li> <li>Cobbler samples were crushed, split and pulverized to produce a 850g sub sample with 50g selected for Aqua Regia digest and fire assayed with an AAS finish.</li> <li>Killaloe Hill and Leatherjacket samples were crushed, dried, split and pulverized to produce a representative 250g sub sample with 50g selected for Aqua Regia digest and pulverized to produce a representative 250g sub sample with 50g selected for Aqua Regia digest and pulverized to produce a representative 250g sub sample with 50g selected for Aqua Regia digest and pulverized to produce a representative 250g sub sample with 50g selected for Aqua Regia digest and pulverized to produce a representative 250g sub sample with 50g selected for Aqua Regia digest and pulverized to produce a representative 250g sub sample with 50g selected for Aqua Regia digest and assayed by ICP mass</li> </ul>			• All Reverse Circulation drilling is sampled and assayed every metre with sample weights averaging approximately 3kg.
<ul> <li>Cobbler samples were crushed, split and pulverized to produce a 850g sub sample with 50g selected for Aqua Regia digest and fire assayed with an AAS finish.</li> <li>Killaloe Hill and Leatherjacket samples were crushed, dried, split and pulverized to produce a representative 250g sub sample with 50g selected for Aqua Regia digest and assayed by ICP mass</li> </ul>			• Most exploration samples were assayed by the commercial ALS laboratory in Kalgoorlie. A few samples, including those near operating mines and where high grades are expected and needed for production reasons are assayed at Norseman Gold's in-house laboratory. Quality control systems are in place and assaying completed using an Atomic Absorption Spectrometer (AAS). CNGC QAQC protocols include the laboratory analysis of at least 5% of all samples independent of laboratory QAQC procedures.
<ul> <li>Killaloe Hill and Leatherjacket samples were crushed, dried, split and pulverized to produce a representative 250g sub sample with 50g selected for Aqua Regia digest and assaved by ICP mass</li> </ul>			• Cobbler samples were crushed, split and pulverized to produce a 850g sub sample with 50g selected for Aqua Regia digest and fire assayed with an AAS finish.
spectrometry.			• Killaloe Hill and Leatherjacket samples were crushed, dried, split and pulverized to produce a representative 250g sub sample with 50g selected for Aqua Regia digest and assayed by ICP mass spectrometry.

Criteria	JORC Code explanation	Commentary
		<ul> <li>Killaloe Hill samples were assayed for Au, Ag, As, Ba, Bi, Ca, Cd, Cu, Fe, Mg, Mn, Mo, Ni, P, Pb, S, Sb and Zn.</li> </ul>
		Talbot Island and Jimberlana samples were split and pulverized to produce a 250g sub sample with 50g selected for a 4 acid digest and assayed by ICP atomic emission spectrometry. The samples were assayed for Au, Ag, Al, As, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, Ga, K, La, Mg, Mn, Mo, Na, Ni, P, Pb, Pd, Pt, S,, Sb, Sc, Sr, Th, Ti, Tl, U, V,W and, Zn. Slippers samples were pulverized and split to produce a 200g sub sample which was 400ml or 800ml water leached using a 7g CN pill in rotary drum with AAS finish.
		Leatherjacket, Cobbler and Slippers samples were assayed for Au only. The Platinum group elements and Au for Talbot Island and Jimberlana samples were fire assayed with an ICP - MS finish. Testing at Slippers and Leatherjacket was completed to test for nuggetty, Norseman style quartz reef. All results, regardless of sample size, are subject to interpretation using guidelines developed over many years of experience drill testing and mining this style of orebody at Norseman. The ore bodies are challenging to drill test as it is not unusual for less than 50% of holes drilled within areas that are subsequently mined at high grade to return high grade assays.
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>RC Drilling details are as follows. Killaloe Hill (13 holes), 1,648m total, depths 114-153m (127m average). Leatherjacket (6 holes), 601m total, depths 77-117m (100m average). Cobbler (5 holes), 236m total, depths 15-68m (47m average). Talbot island (4 RC holes), 536m total, depths 105 -160m (134m average). Jimberlana (3 holes), 309m total, depths 102-104m (103m average)</li> </ul>

Criteria	JORC Code explanation	Commentary
		Slippers (5 holes), 291m total, depths 57-63m (58m average).
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>RC recoveries are logged and recorded in the database. Overall recoveries are &gt;95%.         Drill sample recoveries are recorded on a sample interval basis and lithology and other information as shown below logged on an interval basis. Overall recoveries are very good and there are no significant sample recovery problems. Most sample recovery problems occur in the 0-6m depth range due to unconsolidated cover sediments.     <li>Drill cyclones and sample buckets are periodically cleaned between rod changes and after each hole to minimize down hole and/or cross – hole contamination.</li> <li>Insufficient drilling data is available at present to evaluate a sample bias. Most sample loss occurs in the 0-6m depth range. CNGC's protocols and QAQC procedures being followed preclude any significant issue of sample bias due to material loss or gain.</li> </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>Logging of RC drill chip samples records the following characteristics. Lithology, mineralogy, texture, grain size, colour, contact, weathering, key marker horizon (base of: alluvium, complete oxidation, partial oxidation), sample condition, alteration, mineralisation, veining and structure.</li> <li>RC logged samples are stored in plastic chip trays as a reference library to be referred to for visual checking against assays and to be digitally photographed for use in in reports etc.</li> <li>All RC holes were logged in full to end of hole.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to</li> </ul>	<ul> <li>All RC Drill samples were taken directly off a rotary splitter attached to the cyclone. Samples were quarter split to achieve an average weight of 3kg collected in calico bags attached to the splitter. The samples were generally dry but some samples were wet at rod changes when water seeped into the hole or the water flow was excessive and could not be held back from entering the hole by</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul> <li>maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>compressed air.</li> <li>The sample preparation follows industry best practice consisting of oven drying, coarse crush, riffle split to 1kg, pulverising split with 85% passing 75micro sufficient for 50gm duplicate analysis.</li> <li>At this stage of the various projects field QAQC procedures involve submitting of laboratory certified reference material (CRM) samples to monitor the laboratory assay results, inserting blanks, duplicates and re splits that are analysed with each batch of samples. The quality control results are reported along with the sample values in the final analysis report from the laboratory. Analysis of the QC samples is achieved using the QAQC module within the database. Selected samples are also re-analysed to confirm anomalous results.</li> <li>Staggered insertion of one blank, one standard (CRM) and the collection of one field duplicate every 50 samples under geological supervision ensures consistency in the collection of QC data. Consequently for every 100 samples there are 7 control samples offering reliable QAQC data.</li> <li>The sample sizes are considered appropriate to test for nickel sulphide and base metals and to be representative. Sample sizes used to test for gold are an appropriate best attempt to correctly represent the Norseman quartz vein style of mineralisation. It is known that it is very difficult to use drill samples to definitively test the Norseman style of nuggetty mineralisation.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul> <li>Reverse Circulation drill samples are analysed by several methods as follows for 50g and 100g spit pulverized samples.</li> <li>Aqua Regia (nitric and hydrochloric acid) digest and fire assay with an AAS finish.</li> <li>Aqua Regia (nitric and hydrochloric acid) digest and ICP assayed with MS finish</li> <li>Four Acid (hydrofluoric, nitric, perchloric and hydrochloric) digest suitable for silica based samples for analysis of a multi element suite by ICP/AES and ICP/MS finish. The method approaches total dissolution of most minerals.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>4. CN Leach – 400ml or 800ml of 7g CN solution digest bottle rolled in rotary drum for 1.5 hours and gravity settled with AAS finish (CNGC onsite laboratory).</li> <li>Internal QAQC involves the reading of in- house standard reference materials (CRM) and blanks every 50<sup>th</sup> sample which is captured in the CNGC database. Laboratory QAQC involves the use of internal laboratory standards using certified reference materials, blanks, splits and replicates as part of their in-house procedures.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>CNGC's Exploration Manager has visually verified significant intersections in samples from all prospects reported.</li> <li>No twinned holes have been drilled.</li> <li>Primary data was collected for drill holes using a set of standard Excel templates on Toughbook laptop computers using lookup codes. This data was validated before uploading into CNGC's SQL database server.</li> <li>No adjustments or calibrations were made to any assay data used in this report.</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> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Drill hole collar locations were recorded using a Leica electronic theodolite with a differential GPS system used as a base station. Hole collars were picked up using a Rover electronic pole read by the Leica base station. Elevation values are in AHD RL. The accuracy of the survey is +/-0.3m. Downhole surveys used the Reflex ACT II electronic multi shot survey tool. Surveys were taken at the surface to confirm the collar set up and then every 30m down hole with a bottom of hole survey taken of dip and azimuth.</li> <li>The grid system is MGA94 (Zone 51) with local easting and northing in MGA.</li> <li>Topographic control is sourced from published government survey data to calibrate the Leica base station to known survey points. Additional topographic control uses CNGC's regional aerial photography flown on the 29/3/1982 and photogrametrically compiled by Aerial Surveys of Australia in September 1983 into 1:7,500 base sheets at 5m contour intervals.</li> </ul>
Data spacing	Data spacing for reporting of Exploration Results.	The nominal drill hole spacing s project specific, refer to figures in

Criteria	JORC Code explanation	Commentary
and distribution	<ul> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>text.</li> <li>The mineralised domains, other than at Cobbler, have not yet demonstrated sufficient continuity in both geological and grade continuity to support the definition of Mineral Resource and Reserves, and the classification applied under the 2012 JORC Code. The Cobbler resource needs to be re-evaluated in order to be compliant under the 2012 JORC code.</li> <li>No compositing of RC drill samples has occurred due to CNGC's QAQC protocols which have been activated to eliminate any potential dilution effect attributed to composite sampling techniques.</li> </ul>
Orientation of data in relation to geological structure	<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> <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>Drill holes orientations were designed to achieve an unbiased sampling by attempting to intersect potential mineralised structures normal to dip and strike as follows.</li> <li>Killaloe Hill drill orientations were declined at -60° towards the south and vertical.</li> <li>Leatherjacket drill orientations were declined at -60° towards the west.</li> <li>Cobbler drill orientations were declined at -60° towards the east and vertical.</li> <li>Talbot Island drill orientations were declined at -60° towards the SSW and SSE.</li> <li>Jimberlana drill orientations were declined at -60° towards the WNW and SSE.</li> <li>Slippers drill orientations were declined at -60° towards the west.</li> <li>No orientation based sampling bias has been identified in the data at this point.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>Chain of custody is managed by CNGC. Samples are stored and collected from site by Hogan P &amp; L Transport and delivered to the ALS laboratory in Kalgoorlie. Samples being analysed at the CNGC on site laboratory in Norseman are directly dispatched from the drill site to the lab by CNGC staff.</li> </ul>
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	<ul> <li>No review of the data management system has been carried out.</li> </ul>

# Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>Killaloe Hill – located on M63/116 held under Central Norseman Gold Corporation Pty Ltd (a wholly owned subsidiary of Norseman Gold plc).</li> <li>Leatherjacket – located on M63/48 held under Central Norseman Gold Corporation Pty Ltd (a wholly owned subsidiary of Norseman Gold plc).</li> <li>Cobbler – located on M63/44 held under Central Norseman Gold Corporation Pty Ltd (a wholly owned subsidiary of Norseman Gold plc).</li> <li>Slippers – located on M63/156 held under Central Norseman Gold Corporation Pty Ltd (a wholly owned subsidiary of Norseman Gold plc).</li> <li>Slippers – located on M63/156 held under Central Norseman Gold Corporation Pty Ltd (a wholly owned subsidiary of Norseman Gold plc).</li> <li>Talbot Island – located on M63/265 held under Central Norseman Gold Corporation Pty Ltd (a wholly owned subsidiary of Norseman Gold plc).</li> <li>Jimberlana – located on M63/207 held under Central Norseman Gold Corporation Pty Ltd (a wholly owned subsidiary of Norseman Gold plc).</li> <li>All of above listed tenements have mortgages registered in the following names.</li> <li>Tulla Resources Group Pty Ltd Farrer Place Holdings Pty Ltd David Christian Steinepreis</li> <li>All CNGC tenements are within the Ngadju Native Title Claim (WC99/002)</li> <li>The tenements are in good standing and no known impediments exist.</li> </ul>

Criteria	JORC Code explanation	Commentary
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>The following summaries are for multiple phases of work completed at varying stages in the past by a number of companies under varying quality control regimes and reporting frameworks. All reports were completed under less rigorous reporting standards than the current rules. Not all of the information can be verified or checked for accuracy and is presented as a best current summary to assist in interpreting current results. All of the current drilling has been completed in areas where previous work has taken place. Resources mentioned below are not JORC compliant under current rules. In some cases they are from internal company reports and may not have been released in ASX or other market announcements.</li> <li>At Killaloe Hill – previous exploration principally by CNGC (WMC owner) in the 1980's – mid 1990's conducted geological mapping, soil sampling and drilling identifying anomalous Au mineralisation which included 2m @ 24.15g Au/t from 65m in hole KH61P. Recent re assaying by CNGC (NORC owner) of some of the pulps from the historic CNGC (WMC owner) of some of the pulps from the historic CNGC (WMC owner) drilling identified anomalous intercepts in KH54P as follows.</li> <li>4m @ 0.65g Au/t from 22m , 15m @2.01% Cu from 26m and 8m @ 0.38% Zn from 49m mineralisation associated with cherty sediments and a black shale.</li> <li>Talbot Island and Jimberlana – Limited previous exploration by CNGC (WMC) and WMC Resources returned significant nickel sulphide intercepts at various prospects including Talbot Island (14.3m at 1.16% nickel) and Jimberlana (10m at 1.03% nickel). Other exploration activities included mapping, geophysical surveys (TEM and DEM), rock and soil sampling to aid in drill hole targeting. Nickel Australia in 2004 intersected 8m @ 1.01% Ni from 44m in aircore hole NNA025. They also carried out diamond drilling with the best intercept of 1m @ 1.16% Ni from 287.95m in NND009 at Talbot Island. Nickel Australia also completed additional EM and DEM surveys.</li> </ul>

Criteria	JORC Code explanation	Commentary
		Cobbler was aircore and diamond drilled by CNGC (WMC) in the early - late1990's. Optimisation studies by CNGC (Croesus Mining) in 2002 concluded mining was highly sensitive to the gold price which ranged at the time of from \$400-\$600/ounce. CNGC (Croesus Mining) in 2005 defined a resource. In 2010 CNGC (Norseman Gold) drilled 3 diamond holes on the north end of the deposit. Hole ASS021 intersected 11m @ 5.65g/t Au confirming the deposit is not closed off to the north. Leatherjacket- is a conceptual target identified by CNGC (Norseman Gold) after a review of historic CNGC (WMC) drilling. A laminated interpreted N-S striking east dipping quartz reef was intersected in several historic drill holes. Aircore hole CW1-1860 intersected 5m @ 14.7g Au/t from 46m associated with thin infrequent quartz veins in basalt. The mineralization at Harlequin is known from underground mining to consist of complex vein shapes, including east-west veins and veins that change in strike and dip. It is therefore possible that the known results may be re-interpreted in future. At Slippers near the Princess Royal mine – previous exploration phases included two drilling programs to evaluate the southern extension of the slippers pit mineralisation. In December 2003 Croesus Mining drilled holes SLRC001- SLRC015. Resource modelling was completed by Croesus. In 2008 CNGC (Norseman Gold) infill drilled the southern end with holes SLRC23-SLR042. The resource was modelled by (Norseman Gold) using a cut off of 1g/t Au. In early 2011 the model was revised and in late 2011 the model was further revised using a cut off of 0.73g/t Au.
Geology	• Deposit type, geological setting and style of mineralisation.	<ul> <li>The Norseman area lies at the southern extent of the Norseman- Wiluna Greenstone Belt of the Eastern Goldfields Province of the Yilgarn Block, Western Australia. The Norseman Regional stratigraphy is as follows.</li> </ul>

**JORC Code explanation** 

#### Commentary

#### Archaean

**Penneshaw Formation:** Consists of a sequence of tholeiitic massive and pillowed basalts and gabbro units, with minor intercalated sediment flows. Felsic units (rhyodacites) extensively intrude the mafic sequences and towards the west the upper sequence becomes dominated by felsic and sedimentary units. The basal contact of the Penneshaw Formation is a sheared contact with Archaean granitoid gneiss.

**Noganyer Formation:** The lower contact is gradational to faulted (greenschist abutting amphibolite facies rocks) with the underlying Penneshaw Formation. The Noganyer Formation consists of a sedimentary sequence of sandstone, siltstone, shale, SIF {thinly bedded turbidite sequences of silicified sandstone- siltstone interbedded with iron rich shale horizons and jaspilite). The Noganyer Formation has been intruded by mafic/ ultramafic sills and dykes.

**Woolyeenyer Formation:** Unconformably overlying the Noganyer Formation based on aeromagnetics and convergence of geology suggests an angular unconformity or faulted boundary between the two formations.

The Woolyeenyer Formation consists dominantly of a sequence of basaltic pillow lavas, with minor interflow sediments and a series of intrusive gabbro to ultramafic dykes and sills including the Talbot Island Ultramafic. Felsic porphyry dykes have extensively intruded the sequence. The major gold bearing quartz lodes historically mined

At Norseman the gold mines are mostly hosted within the Woolyeenyer Formation with minor gold mines hosted in the

Criteria	JORC Code explanation	Commentary
		Penneshaw, Noganyer and Mt Kirk Formations.
		The Norseman style of gold mineralisation applicable to the Cobbler,
		Learner jacket and Suppers prospects consists of hydrothermality emplaced $Si_Au + /_Cu_+ /_Zn + /_Ph$ charged mineralisation fluids
		invading pre-existing structures (shears, fractures, faults) and along
		lithological contacts with a pre-disposition to coarse grained
		intrusives and extrusives. The host rocks have been subjected to
		several deformation phases enhancing the structural traps producing
		dilation zones. At Norseman gabbro sills and dykes;
		glomeroporphyritic basalts (Blue Bird Gabbro) and granodiorite
		(Harlequin granodiorite) are the main hosts for the laminated Au
		bearing quartz veins.
		The Komatiite Style sulphide Nickel mineralisation applicable to the
		I albot Island and Jimberlana prospects consists of a komatilitic
		magma which intrudes and erupts as a high – degree partial melting
		of the mantie and strongly undersaturated in sulphide. The magma
		extrudes as a lava which may be over 5 fich country rocks (supplied
		scouring out the contact zones. As the flowing magma cools sulphide
		separates from the silicate melt and tend to pool within scour
		depressions. Consequently there is a thickening of the basal flow of
		the komatilite where lava channels form. There is also zoning in
		sulphides within the channels with massive sulphides at the base to
		cloud disseminations of sulphides towards the top.
		The Talbot Island Ultramafic unit is a thick ultramafic (serpentinite)
		flow (or flows) overlying thin chert and a tholeiitic basaltic sequence.
		The geological environment has similarities to other komatiite hosted
		Ni sulphide ore bodies in the Yilgarn Province of Western Australia.
		Mt Kirk Formation: A sequence of felsic volcanic, volcanoclastic and
		sedimentary units intruded by large layered mafic sills.

**JORC Code explanation** 

#### Commentary

The interpreted possible volcanogenic massive sulphide (VMS) style of mineralisation applicable to the Killaloe Hill prospect are mainly Cu- Zn–Pb-Ag and Au deposits of volcanic associated hydrothermal activity in submarine environments. VMS deposits are stratabound accumulations of sulphide minerals on the sea floor in nearby association with contemporaneous volcanism. They can be hosted in by shales and greywackes.

At Norseman the intravolcanic sedimentary successions are interpreted to be low – stand submarine turbidite fan deposits with organic, sulphidic shales and volcaniclastics deposited in a back arc or marginal spreading basin. At the Killaloe Hill prospect drilling to date has defined zones of base metal (Cu-Zn), Ag and Au enrichment within the top horizon of the black shales and in the cherty shales directly above the black shales.

#### Proterozoic

**Jimberlana Dyke:** Cumulate layered funnel shaped dolerite dyke up to 2km wide trends approx E-W transecting the Norseman greenstone belt.

The regional stratigraphy has been interpreted as affected by 4 phases of deformation as follows.

D1 comprised approx N-S thrust faulting, and folding expressed as faults repeating regional geology (i.e. the entire Woolyeenyer Formation and parts of the Noganyer Formation) and possible re activation of earlier layer parallel faults. The folding produced the northerly plunging Norseman Anticline which is the dominant structure in the Norseman Terrane.

Criteria	JORC Code explanation	Commentary
		D2 comprised approx E-W shortening producing large scale folds (i.e. Penneshaw Anticline) over printing D1 thrust faults, re activating older faults and produced a series of N-S thrust faults west of the Mission Fault zone which separates the Norseman and Kalgoorlie Terranes. Emplacement of porphyry – granitoid dykes occurred during late D2 after the stratigraphy had been steepened.
		D3 was associated with rotation of the shortening direction to Approx ENE-WSW reactivating older extensional and compressional structures and was probably a continuation of D2. Mineralisation has been interpreted to have occurred during dominantly reverse slip re-activation of earlier structures during D3.
		D4 Post mineralisation structures rarely documented but are recorded as localised folds with D4 NE-SW shortening and minor brittle NW to NE faults.
		Metamorphism
		The regional metamorphic grade in the Norseman greenstone belt as follows:
		• Varying from greenschist facies in the central part around Lake Cowan to middle amphibolite facies to the south around the Scotia mine where the greenstone sequence is highly attenuated between granite.
		<ul> <li>Metamorphic grade increases to the east and west towards the Buldania granitoid complex and Pioneer Dome respectively.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>Peak metamorphic conditions are synchronous with late D2 to D3.</li> </ul>
		The alteration assemblages associated with the gold deposits at Norseman vary with metamorphic grade. Ductile deformation of both gold – bearing veins and thin alteration haloes it implies the Norseman gold deposits formed during deformation and at high temperatures near peak metamorphism
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul> <li>Sample locations are shown in Figures in body of text. Refer to annexure1 in body of text.</li> </ul>
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>No averaging techniques are used except over multiple consecutive 1m intervals reporting significant intersections. Lower and upper cut grades with internal dilution are as follows. Au - 1,000ppm top cut; 0.5ppm bottom cut; 2m internal dilution. Cu - 50,000ppm top cut; 5,000 ppm bottom cut; 2m internal dilution. Zn - 50,000ppm top cut; 5,000ppm bottom cut; 2m internal dilution. Ni - 50,000ppm top cut: 5,000ppm bottom cut; 2m internal dilution.</li> <li>All samples are 1m sample lengths so no aggregation procedures are used.</li> <li>No metal equivalent values are used for reporting exploration results.</li> </ul>
Relationship between	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle</li> </ul>	Refer to Annexure 1 and figures in body of text.

Criteria	JORC Code explanation	Commentary
mineralisatio n widths and intercept lengths	<ul> <li>is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	
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.	Refer to Figures in body of text.
Balanced reporting	<ul> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul> <li>Significant and insignificant Au, Cu, Zn and Ni results are reported for RC drilling. Lower cut-of grades for significant assays are as follows. Au = 0.5 ppm Cu, Zn and Ni = 5,000ppm</li> </ul>
Other substantive exploration data	<ul> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	<ul> <li>All relevant exploration data is shown on figures in text and in Annexure 1.</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Killaloe Hill base metal exploration review to extend to the Polar Bear area to the NW of Killaloe Hill where previous exploration for base metals had some limited success in the Mt Kirk Formation.</li> <li>Talbot Island diamond drilling results to be reviewed to determine if more drilling is required.</li> <li>Leatherjacket results to be reviewed in conjunction with a wider review of the Harlequin area.</li> <li>Mining review of Cobbler and Slippers prospects</li> </ul>

# Section 3 Estimation and Reporting of Mineral Resources

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

Criteria	JORC Code explanation	Commentary
Database	Measures taken to ensure that data has not been corrupted by, for	Insert your commentary here

Criteria	JORC Code explanation	Commentary
integrity	<ul><li>example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</li><li>Data validation procedures used.</li></ul>	
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	•
Geological interpretation	<ul> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	•
Dimensions	• The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	•
Estimation and modelling techniques	<ul> <li>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</li> <li>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</li> <li>The assumptions made regarding recovery of by-products.</li> <li>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</li> <li>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</li> <li>Any assumptions about correlation between variables.</li> </ul>	•

Criteria	JORC Code explanation	Commentary
	<ul> <li>the resource estimates.</li> <li>Discussion of basis for using or not using grade cutting or capping.</li> <li>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</li> </ul>	
Moisture	<ul> <li>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</li> </ul>	•
Cut-off parameters	<ul> <li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li> </ul>	•
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.	•
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.	•
Environmen- tal factors or assumptions	<ul> <li>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with</li> </ul>	•

JORC Code explanation	Commentary
an explanation of the environmental assumptions made.	
<ul> <li>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.</li> <li>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.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	•
<ul> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>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).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	•
The results of any audits or reviews of Mineral Resource estimates.	•
<ul> <li>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.</li> <li>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</li> <li>These statements of relative accuracy and confidence of the estimate</li> </ul>	•
	<ul> <li>JORC Code explanation <ul> <li>an explanation of the environmental assumptions made.</li> </ul> </li> <li>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.</li> <li>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.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>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).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> <li>The results of any audits or reviews of Mineral Resource estimates.</li> </ul> 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. <li>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</li>

# Section 4 Estimation and Reporting of Ore Reserves

(Criteria listed in section 1, and where relevant in sections 2 and 3, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	<ul> <li>Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.</li> <li>Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.</li> </ul>	No ore reserves mentioned in release
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	•
Study status	<ul> <li>The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.</li> <li>The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.</li> </ul>	•
Cut-off parameters	<ul> <li>The basis of the cut-off grade(s) or quality parameters applied.</li> </ul>	•
Mining factors or assumptions	<ul> <li>The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).</li> <li>The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.</li> <li>The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.</li> <li>The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).</li> </ul>	•

Criteria	JORC Code explanation	Commentary
	<ul> <li>The mining dilution factors used.</li> <li>The mining recovery factors used.</li> <li>Any minimum mining widths used.</li> <li>The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.</li> <li>The infrastructure requirements of the selected mining methods.</li> </ul>	
Metallurgical factors or assumptions	<ul> <li>The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.</li> <li>Whether the metallurgical process is well-tested technology or novel in nature.</li> <li>The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.</li> <li>Any assumptions or allowances made for deleterious elements.</li> <li>The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.</li> <li>For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?</li> </ul>	•
Environmen- tal	<ul> <li>The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.</li> </ul>	•
Infrastructure	<ul> <li>The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.</li> </ul>	•
Costs	<ul> <li>The derivation of, or assumptions made, regarding projected capital costs in the study.</li> <li>The methodology used to estimate operating costs.</li> <li>Allowances made for the content of deleterious elements.</li> <li>The source of exchange rates used in the study.</li> <li>Derivation of transportation charges.</li> </ul>	•

Criteria	JORC Code explanation	Commentary
	<ul> <li>The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.</li> <li>The allowances made for royalties payable, both Government and private.</li> </ul>	
Revenue factors	<ul> <li>The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.</li> <li>The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.</li> </ul>	•
Market assessment	<ul> <li>The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.</li> <li>A customer and competitor analysis along with the identification of likely market windows for the product.</li> <li>Price and volume forecasts and the basis for these forecasts.</li> <li>For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.</li> </ul>	•
Economic	<ul> <li>The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.</li> <li>NPV ranges and sensitivity to variations in the significant assumptions and inputs.</li> </ul>	•
Social	<ul> <li>The status of agreements with key stakeholders and matters leading to social licence to operate.</li> </ul>	•
Other	<ul> <li>To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:</li> <li>Any identified material naturally occurring risks.</li> <li>The status of material legal agreements and marketing arrangements.</li> <li>The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any</li> </ul>	•

Criteria	JORC Code explanation	Commentary
	unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.	
Classification	<ul> <li>The basis for the classification of the Ore Reserves into varying confidence categories.</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> <li>The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).</li> </ul>	•
Audits or reviews	<ul> <li>The results of any audits or reviews of Ore Reserve estimates.</li> </ul>	•
Discussion of relative accuracy/ confidence	<ul> <li>Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve 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 reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.</li> <li>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</li> <li>Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.</li> <li>It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</li> </ul>	•

## **Section 5 Estimation and Reporting of Diamonds and Other Gemstones**

(Criteria listed in other relevant sections also apply to this section. Additional guidelines are available in the 'Guidelines for the Reporting of Diamond Exploration Results' issued by the Diamond Exploration Best Practices Committee established by the Canadian Institute of Mining, Metallurgy and Petroleum.)

Criteria	JORC Code explanation	Commentary
Indicator minerals	<ul> <li>Reports of indicator minerals, such as chemically/physically distinctive garnet, ilmenite, chrome spinel and chrome diopside, should be prepared by a suitably qualified laboratory.</li> </ul>	<ul> <li>No diamonds or gemstones reported in release.</li> </ul>
Source of diamonds	<ul> <li>Details of the form, shape, size and colour of the diamonds and the nature of the source of diamonds (primary or secondary) including the rock type and geological environment.</li> </ul>	•
Sample collection	<ul> <li>Type of sample, whether outcrop, boulders, drill core, reverse circulation drill cuttings, gravel, stream sediment or soil, and purpose (eg large diameter drilling to establish stones per unit of volume or bulk samples to establish stone size distribution).</li> <li>Sample size, distribution and representivity.</li> </ul>	•
Sample treatment	<ul> <li>Type of facility, treatment rate, and accreditation.</li> <li>Sample size reduction. Bottom screen size, top screen size and recrush.</li> <li>Processes (dense media separation, grease, X-ray, hand-sorting, etc).</li> <li>Process efficiency, tailings auditing and granulometry.</li> <li>Laboratory used, type of process for micro diamonds and accreditation.</li> </ul>	•
Carat	• One fifth (0.2) of a gram (often defined as a metric carat or MC).	•
Sample grade	<ul> <li>Sample grade in this section of Table 1 is used in the context of carats per units of mass, area or volume.</li> <li>The sample grade above the specified lower cut-off sieve size should be reported as carats per dry metric tonne and/or carats per 100 dry metric tonnes. For alluvial deposits, sample grades quoted in carats per square metre or carats per cubic metre are acceptable if accompanied by a volume to weight basis for calculation.</li> </ul>	•

Criteria	JORC Code explanation	Commentary
	<ul> <li>In addition to general requirements to assess volume and density there is a need to relate stone frequency (stones per cubic metre or tonne) to stone size (carats per stone) to derive sample grade (carats per tonne).</li> </ul>	
Reporting of Exploration Results	<ul> <li>Complete set of sieve data using a standard progression of sieve sizes per facies. Bulk sampling results, global sample grade per facies. Spatial structure analysis and grade distribution. Stone size and number distribution. Sample head feed and tailings particle granulometry.</li> <li>Sample density determination.</li> <li>Per cent concentrate and undersize per sample.</li> <li>Sample grade with change in bottom cut-off screen size.</li> <li>Adjustments made to size distribution for sample plant performance and performance on a commercial scale.</li> <li>If appropriate or employed, geostatistical techniques applied to model stone size, distribution or frequency from size distribution of exploration diamond samples.</li> <li>The weight of diamonds may only be omitted from the report when the diamonds are considered too small to be of commercial significance. This lower cut-off size should be stated</li> </ul>	•
Grade estimation for reporting Mineral Resources and Ore Reserves	<ul> <li>Description of the sample type and the spatial arrangement of drilling or sampling designed for grade estimation.</li> <li>The sample crush size and its relationship to that achievable in a commercial treatment plant.</li> <li>Total number of diamonds greater than the specified and reported lower cut-off sieve size.</li> <li>Total weight of diamonds greater than the specified and reported lower cut-off sieve size.</li> <li>The sample grade above the specified lower cut-off sieve size.</li> </ul>	•
Value estimation	<ul> <li>Valuations should not be reported for samples of diamonds processed using total liberation method, which is commonly used for processing exploration samples.</li> <li>To the extent that such information is not deemed commercially sensitive, Public Reports should include:         <ul> <li>diamonds quantities by appropriate screen size per facies or</li> </ul> </li> </ul>	•

Criteria	JORC Code explanation	Commentary
	<ul> <li>depth.</li> <li>details of parcel valued.</li> <li>number of stones, carats, lower size cut-off per facies or depth.</li> <li>The average \$/carat and \$/tonne value at the selected bottom cut-off should be reported in US Dollars. The value per carat is of critical importance in demonstrating project value.</li> <li>The basis for the price (eg dealer buying price, dealer selling price, etc).</li> <li>An assessment of diamond breakage.</li> </ul>	
Security and integrity	<ul> <li>Accredited process audit.</li> <li>Whether samples were sealed after excavation.</li> <li>Valuer location, escort, delivery, cleaning losses, reconciliation with recorded sample carats and number of stones.</li> <li>Core samples washed prior to treatment for micro diamonds.</li> <li>Audit samples treated at alternative facility.</li> <li>Results of tailings checks.</li> <li>Recovery of tracer monitors used in sampling and treatment.</li> <li>Geophysical (logged) density and particle density.</li> <li>Cross validation of sample weights, wet and dry, with hole volume and density, moisture factor.</li> </ul>	•
Classification	<ul> <li>In addition to general requirements to assess volume and density there is a need to relate stone frequency (stones per cubic metre or tonne) to stone size (carats per stone) to derive grade (carats per tonne). The elements of uncertainty in these estimates should be considered, and classification developed accordingly.</li> </ul>	•