ASX Announcement

24th September 2014

Sirius Resources NL

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Projects:

Fraser Range nickel-copper, gold

Polar Bear gold, nickel

Nickel exploration update

Highlights

- Thick zone of disseminated nickel sulphide mineralisation intersected adjacent to Taipan at Polar Bear
- Further assay results from previous Taipan drilling
- Second hole on deep EM conductor (DPEM1) intersects pyrite and minor graphite – 16 more conductors to test
- New EM survey started at Polar Bear

Sirius Resources NL (ASX:SIR) ("Sirius" or the "Company") advises that its nickel exploration program is continuing on its 100% owned Nova Mining Lease and Polar Bear projects, with a thick zone of disseminated nickel sulphide mineralisation being identified at Taipan, as outlined below.

Taipan

Results received from follow up reverse circulation (RC) drilling at the Polar Bear project have identified more nickel mineralisation at the Taipan prospect and discovered a thick zone of disseminated nickel mineralisation immediately to the east of, and in the hangingwall to, the original zone. This second zone is known as the East Zone.

The initial Taipan zone has now been outlined over a strike length of 150 metres and a dip extent of over 150 metres (*see Figures 1 and 2*). Results have been received for three holes, with key intercepts as follows (*see Annexure 1 and Table 1*):

- 20 metres @ 0.62% nickel, 0.10 copper, 0.02% cobalt, 0.17 g/t Pt and 0.39 g/t Pd from 113 metres including 2 metres @ 1.46% nickel, 0.43% copper, 0.03% cobalt, 0.67 g/t Pt and 1.69 g/t Pd from 131 metres in SPBC0062

- 2 metres @ 0.77% nickel, 0.09% copper, 0.02% cobalt from 123 metres and 2 metres @ 1.53% nickel, 0.74% copper and 0.03% cobalt from 146 metres in SPBC0063

- 5 metres @ 0.78% nickel, 0.06% copper and 0.02% cobalt from 176 metres and 2 metres @ 0.56% nickel, 0.05% copper and 0.01% cobalt from 190 metres in SPBC0064

A thick new zone of disseminated mineralisation, termed the East Zone, has also been intersected in several RC holes and has so far been outlined over a strike length of 250 metres and a dip extent of 100 metres (*see Figures 1 and 2*). Key intercepts are as follows (*see Annexure 1 and Table 1*):

- 17 metres @ 0.63% nickel, 0.06% copper and 0.01% cobalt from 35 metres in SPBC0063
- 60 metres @ 0.39% nickel, 0.04% copper and 0.01% cobalt from 41 metres, including 5 metres @ 1.22% nickel, 0.15% copper and 0.02% cobalt from 95 metres in SPBC0065
- 35 metres @ 0.48% nickel, 0.05% copper and 0.01% cobalt from 39 metres including 2 metres @ 1.77% nickel, 0.27% copper and 0.04% cobalt from 72 metres in SPBC0069
- 53 metres @ 0.53% nickel, 0.05% copper and 0.01% cobalt from 23 metres in SPBC0070

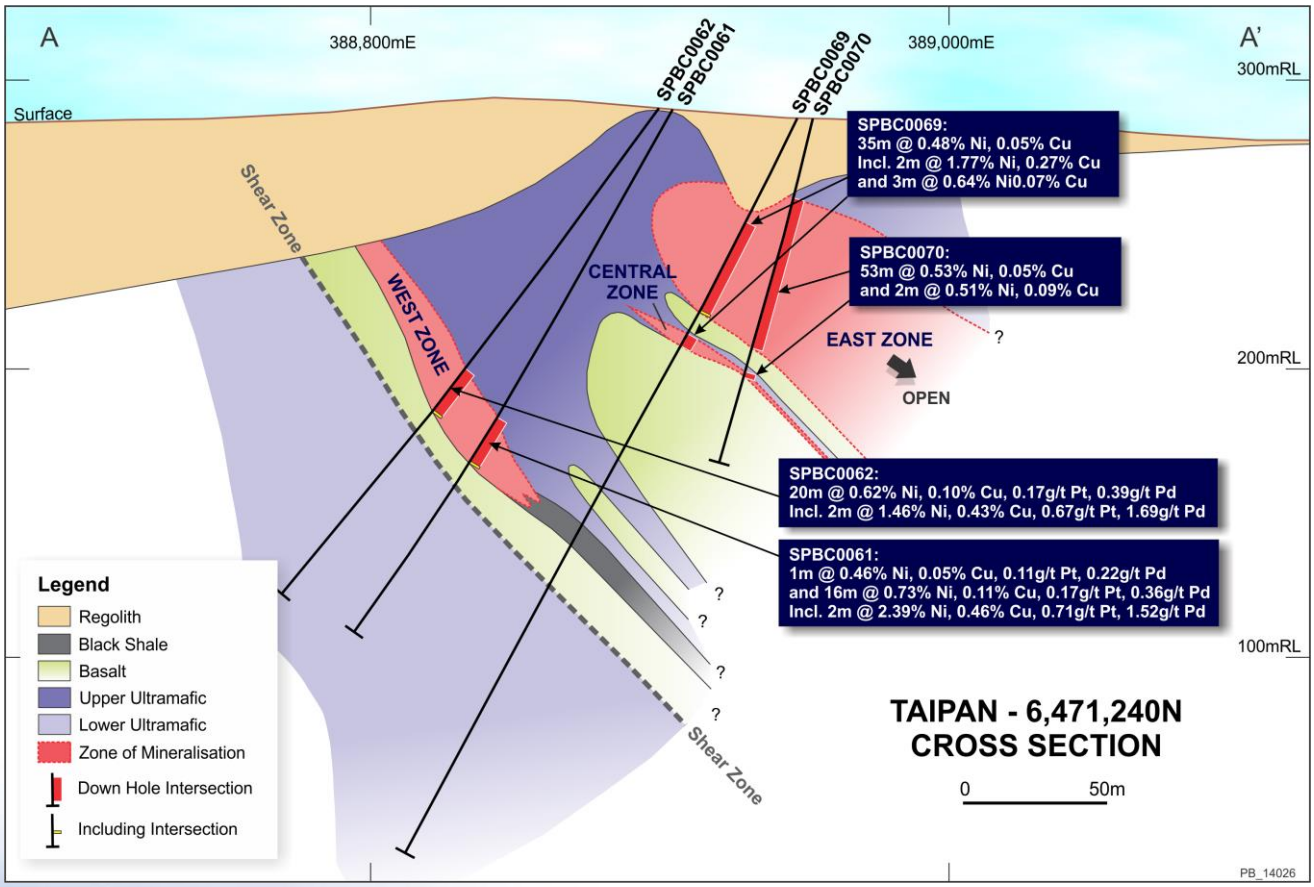
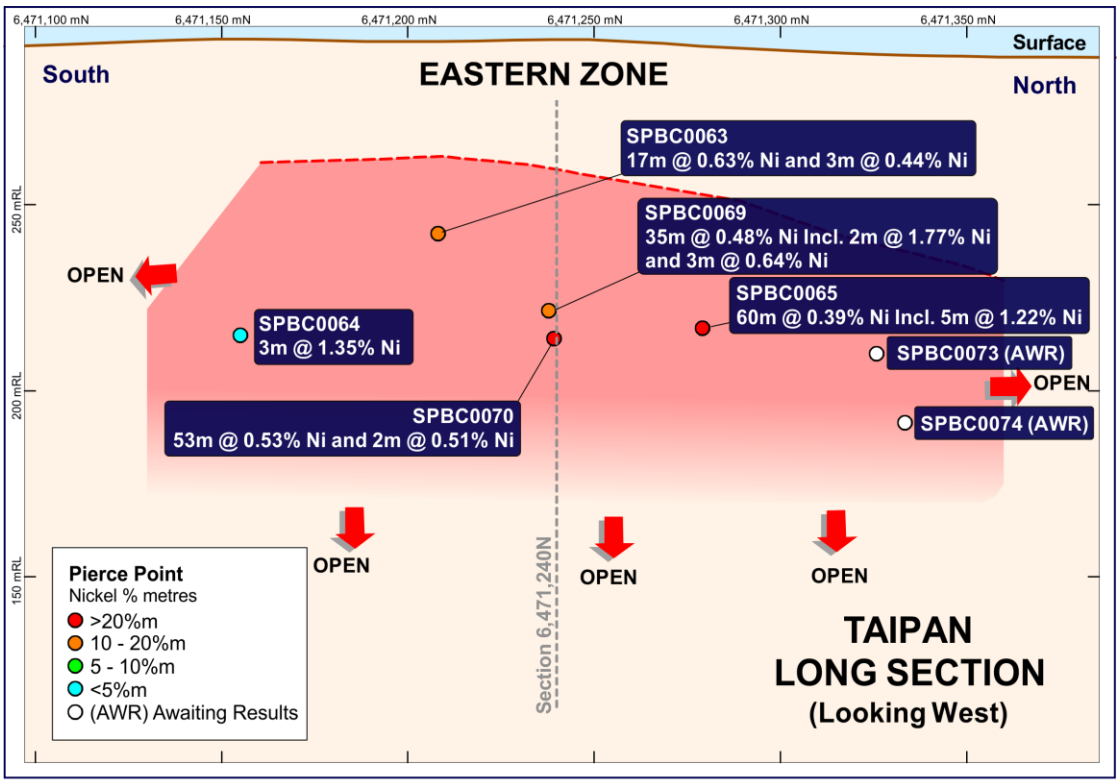


Figure 1. Taipan cross section highlighting the West zone, Central and newly identified East zone.



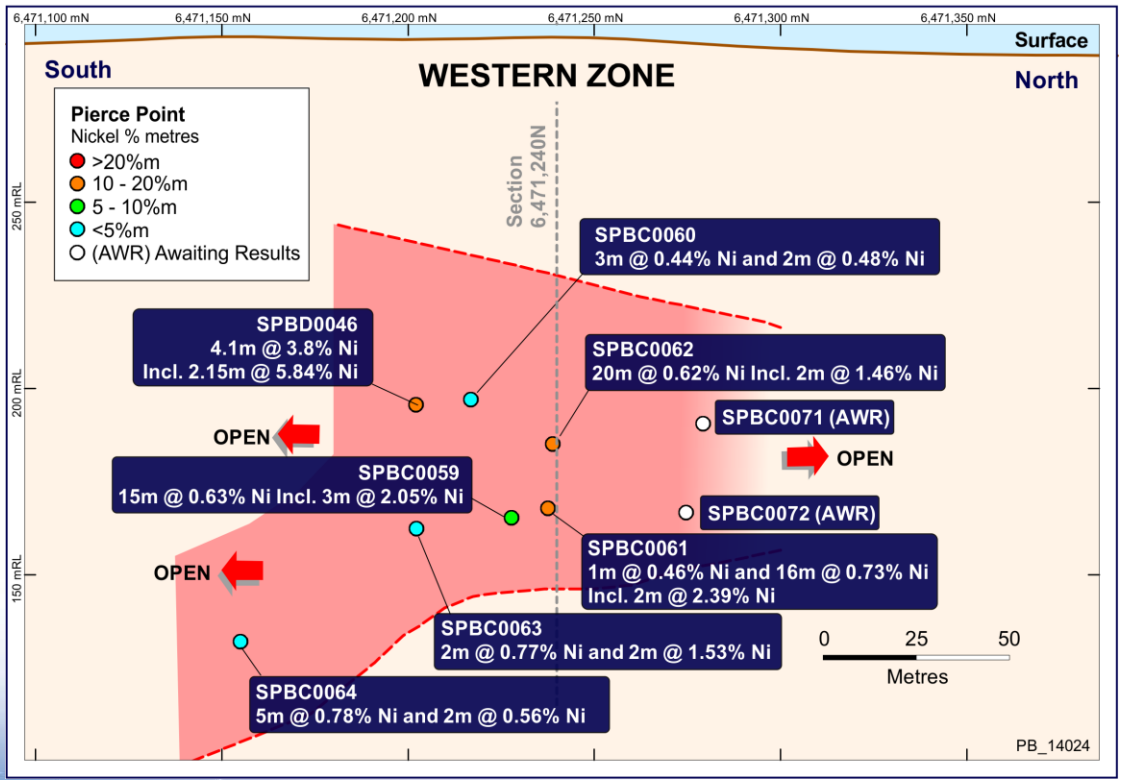


Figure 2. Long projection showing the initial Taipan surface and Eastern zones separately for clarity.

These intercepts are estimated to reflect true width. The mineralisation encountered in the East zone is similar in terms of style and grade to that seen in the larger lower grade deposits of Western Australia, such as that at Mt Keith. Although these deposits are lower grade than the smaller massive sulphide deposits, they are also typically the largest in terms of contained metal content.

A third mineralised surface, located between the Taipan and East zones, also contains nickel mineralisation, as follows:

- 3 metres @ 1.35% nickel, 0.21% copper and 0.04% cobalt from 78 metres in SPBC0064

Platinum group metal assays from the current program will be received over the coming weeks.

Further RC drilling will concentrate on defining the down plunge and down dip extent of the west, central and eastern zones *(see Figures 1 and 2*). The abundance of mineralisation encountered at such an early stage, over such a broad area and on multiple mineralised horizons attests to the high prospectivity of the Halls Knoll-Taipan trend. A major reconnaissance drilling program comprising 1,000 holes is being planned.

Elsewhere at Polar Bear, RC holes SPBC0067 and SPBC0068, drilled to test an EM conductor, intersected variably weathered pyritic black shale (*see Figure 3*).

A reconnaissance moving loop electromagnetic (MLEM) survey, utilising a higher power transmitter than previously used, has commenced and will continue for approximately two months with the aim of identifying additional targets down to a depth of 300 metres. These will be tested over the coming year.

DPEM1 conductor, Nova

The second diamond drill hole (SFRD0559) testing DPEM1 was drilled to a depth of 1048m and intersected a zone of pyrite with minor graphite at a depth of 740 metres (*see Figure 4*). This is the source of the EM conductor DPEM1.

The remaining 16 EM conductors will be systematically drilled over the coming 12 months.

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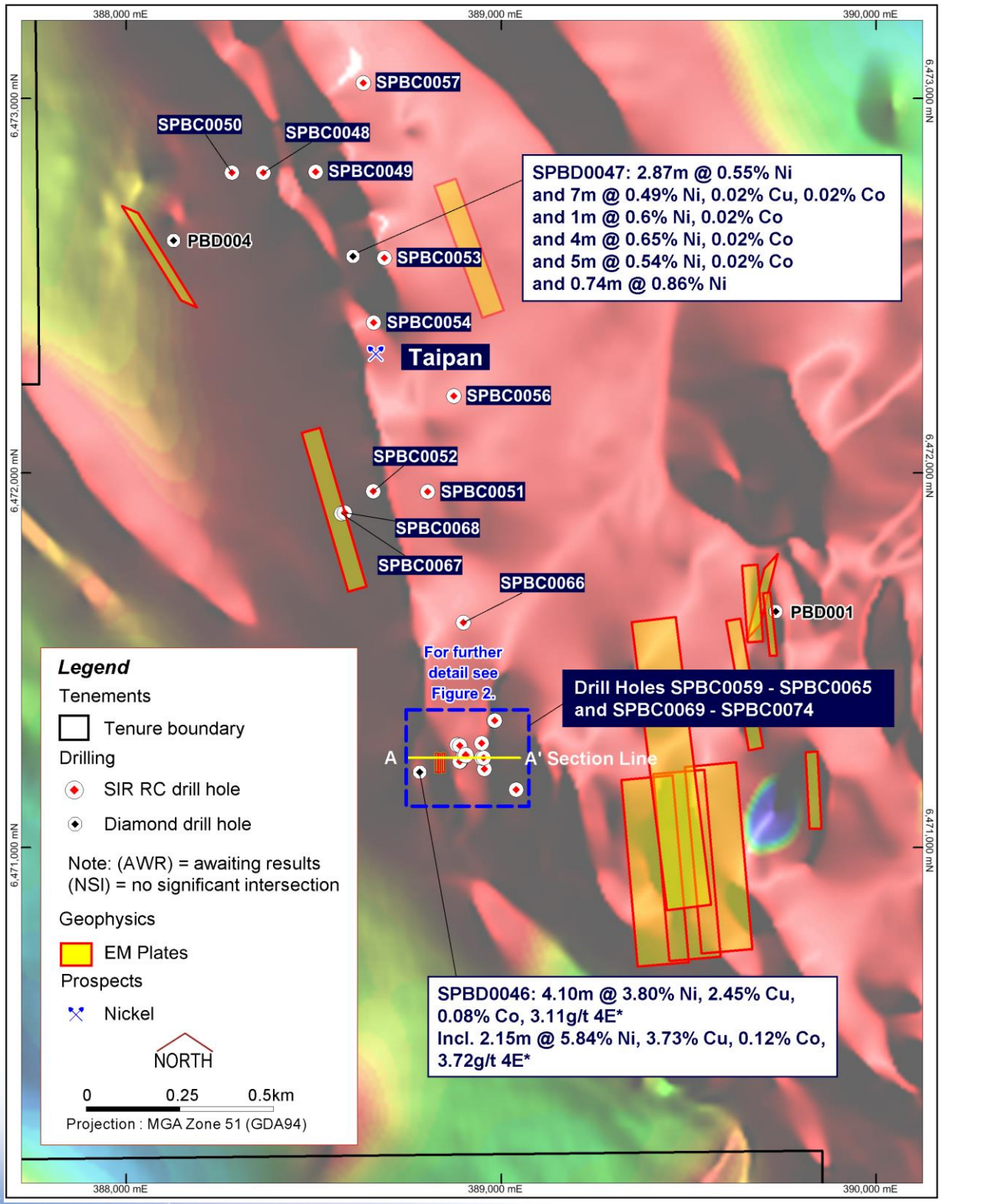

Figure 3. Overview of Taipan area drilling and location of cross section in Figure 1.

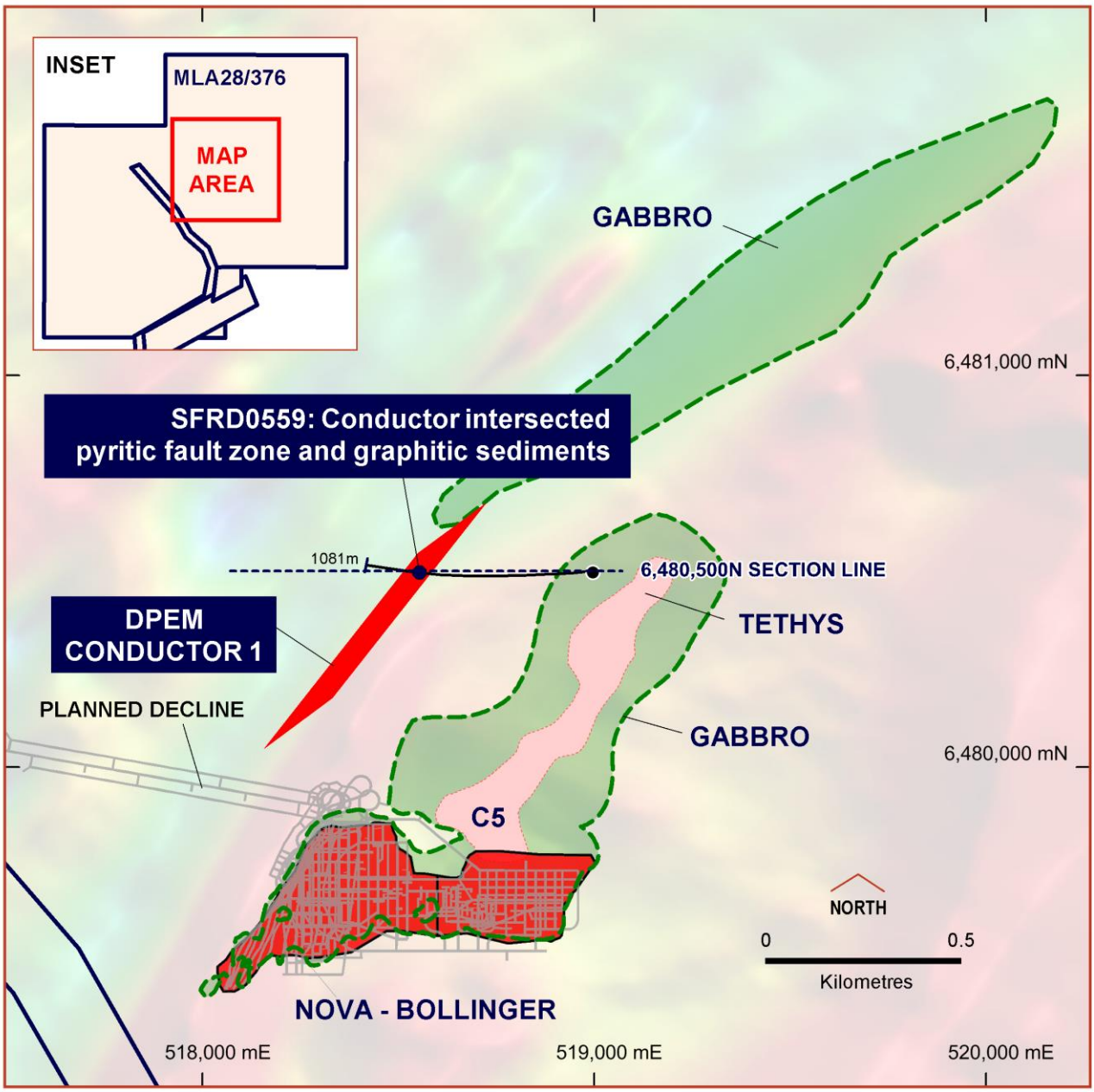

Figure 4. Location of drillhole testing DPEM1 at Nova.

Competent Persons statement

The information in this report that relates to Exploration Results is based on information compiled by Jeffrey Foster and John Bartlett who are employees of the company and fairly represents this information. Mr Foster and Mr Bartlett are members of the Australasian Institute of Mining and Metallurgy. Mr Foster and Mr Bartlett have sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as Competent Persons as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Foster and Mr Bartlett consent to the inclusion in this report of the matters based on information in the form and context in which it appears. Exploration results are based on standard

industry practices, including sampling, assay methods, and appropriate quality assurance quality control (QAQC) measures. Reverse circulation (RC), aircore (AC) and rotary air blast (RAB) drilling samples are collected as composite samples of 4 or 2 metres and as 1 metre splits (stated in results). Mineralised intersections derived from composite samples are subsequently re-split to 1 metre samples to better define grade distribution. Core samples are taken as half NQ core or quarter HQ core and sampled to geological boundaries where appropriate. The quality of RC drilling samples is optimised by the use of riffle and/or cone splitters, dust collectors, logging of various criteria designed to record sample size, recovery and contamination, and use of field duplicates to measure sample representivity. For soil samples, PGM and gold assays are based on an aqua regia digest with Inductively Coupled Plasma (ICP) finish and base metal assays may be based on aqua regia or four acid digest with inductively coupled plasma optical emission spectrometry (ICPOES) or atomic absorption spectrometry (AAS) finish. In the case of reconnaissance RAB, AC, RC or rock chip samples, PGM and gold assays are based on lead or nickel sulphide collection fire assay digests with an ICP finish, base metal assays are based on a four acid digest and inductively coupled plasma optical emission spectrometry (ICPOES) and atomic absorption spectrometry (AAS) finish, and where appropriate, oxide metal elements such as Fe, Ti and Cr are based on a lithium borate fusion digest and X-ray fluorescence (XRF) finish. In the case of strongly mineralised samples, base metal assays are based on a special high precision four acid digest (a four acid digest using a larger volume of material) and an AAS finish using a dedicated calibration considered more accurate for higher concentrations. Sample preparation and analysis is undertaken at Minanalytical, Genalysis Intertek and Ultratrace laboratories in Perth, Western Australia. The quality of analytical results is monitored by the use of internal laboratory procedures and standards together with certified standards, duplicates and blanks and statistical analysis where appropriate to ensure that results are representative and within acceptable ranges of accuracy and precision. Where quoted, nickel-copper intersections are based on a minimum threshold grade of 0.5% Ni and/or Cu, and gold intersections are based on a minimum gold threshold grade of 0.1g/t Au unless otherwise stated. Intersections are length and density weighted where appropriate as per standard industry practice. All sample and drill hole co-ordinates are based on the GDA/MGA grid and datum unless otherwise stated. Exploration results obtained by other companies and quoted by Sirius have not necessarily been obtained using the same methods or subjected to the same QAQC protocols. These results may not have been independently verified because original samples and/or data may no longer be available.

Annexure 1

Hole No.	Zone	Total Depth	North	East	RL	Dip	Azim	From, m	To, m	Width m	Ni pct	Cu pct	Co pct	Pt g/t	Pd g/t
Historical Diamond Drilling															
PBD001	Plate	150	6471631	389732	267	-55	254				NSI				
PBD002	Plate	153	6472140	391232	266	-60	60				NSI				
PBD003	Plate	198	6467933	392764	266	-55	60				NSI				
PBD004	Plate	190.3	6472621	388125	281	-55	235	-	-	-	NSI	-	-	-	-
PBD005	Regional	144	6468057	391082	266	-60	270				NA				
PBD006	Regional	147	6468005	392884	266	-60	60				NA				
Sirius Diamond Drilling															
SPBD0001	Regional	91.8	6468508	390758	266	-60	60	-	-	-	NSI	-	-	-	-
SPBD0002	Halls Knoll	161.1	6468264	391085	266	-60	60	-	-	-	NSI	-	-	-	-
SPBD0003	Halls Knoll South	267	6468039	391216	266	-60	60	-	-	-	NSI	-	-	-	-
SPBD0004	Regional	192	6467869	391470	266	-60	330	-	-	-	NSI	-	-	-	-
SPBD0005	Regional	105	6472422	390922	266	-60	90	-	-	-	NSI	-	-	-	-
SPBD0006	Regional	249	6468500	392033	264	-60	240	-	-	-	NSI	-	-	-	-
SPBD0007	Regional	186.6	6467663	389995	264	-60	60	-	-	-	NSI	-	-	-	-
SPBD0008	Halls Knoll South	171	6468019	391182	266	-60	60	**62**	**65**	**3**	**0.55**	**0.11**	**0.02**	**0.12**	**0.33**
and								**69**	**70**	**1**	**0.52**	**0.07**	**0.02**	**0.1**	**0.24**
SPBD0009	Halls Knoll South	216	6468062	391255	265	-60	60	-	-	-	NSI	-	-	-	-
SPBD0010	Regional	102	6466258	389737	266	-60	90	-	-	-	NSI	-	-	-	-
SPBD0011	Regional	123.5	6466258	389789	266	-60	270	-	-	-	NSI	-	-	-	-
SPBD0012	Regional	101	6466047	389750	266	-60	270	-	-	-	NSI	-	-	-	-

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Hole No.	Zone	Total Depth	North	East	RL	Dip	Azim	From, m	To, m	Width m	Ni pct	Cu pct	Co pct	Pt g/t	Pd g/t
SPBD0042	Earlobe	171.7	6471613	387418	272	-60	240	-	-	-	NA	-	-	-	-
SPBD0043	Earlobe	129.7	6471645	387377	273	-60	230	-	-	-	NA	-	-	-	-
SPBD0044	Earlobe	220	6471599	387498	270	-60	240	-	-	-	NA	-	-	-	-
SPBD0045	Halls Knoll South	471	6468073	391274	266	-60	240	-	-	-	NSI	-	-	-	-
Taipan Trend Diamond and Reverse Circulation Drilling															
SPBD0046*	Taipan	486	6471202	388782	284	-60	90	**104.4**	**108.5**	**4.1**	**3.8**	**2.45**	**0.08**	**0.89**	**1.6**
Including								**106**	**108.15**	**2.15**	**5.84**	**3.73**	**0.12**	**1.1**	**1.65**
SPBD0047	Taipan	548.2	6472580	388600	284	-60	90	**52.13**	**55.00**	**2.87**	**0.55**	-	-	-	-
And								**66**	**73**	**7**	**0.49**	**0.02**	**0.02**	-	-
And								**85**	**86**	**1**	**0.6**	-	**0.02**	-	-
And								**91**	**95**	**4**	**0.65**	-	**0.02**	-	-
And								**110**	**115**	**5**	**0.54**	-	**0.02**	-	-
And								**166.37**	**167.11**	**0.74**	**0.86**	-	-	-	-
SPBC0048	Taipan	226	6472802	388365	280	-60	90				NSI				
SPBC0049	Taipan	268	6472804	388505	280	-60	90				NSI				
SPBC0050	Taipan	256	6472802	388281	279	-60	90				NSI				
SPBC0051	Taipan	244	6471950	388804	279	-60	90				NSI				
SPBC0052	Taipan	94	6471951	388658	284	-60	90				**AWR**				
SPBC0053	Taipan	286	6472574	388688	271	-60	270				**AWR**				
SPBC0054	Taipan	298	6472401	388660	275	-60	270				**AWR**				
SPBC0055	Taipan	280	6472201	388725	280	-60	270				**AWR**				
SPBC0056	Taipan	310	6472206	388873	272	-60	270				**AWR**				
SPBC0057	Taipan	300	6473040	388630	280	-60	270				**AWR**				
SPBC0058	Taipan	178	6471900	387625	280	-60	90				**AWR**				
SPBC0059	Taipan	214	6471230	388890	292	-68	270	122	137	15	0.63	0.11	0.02	0.24	0.47
Including								134	137	3	2.05	0.45	0.05	0.97	1.90
SPBC0060	Taipan	172	6471230	388888	292	-59	262	97	100	3	0.44	0.04	0.01	0.07	0.13
And								109	111	2	0.48	0.22	0.01	0.36	0.78
SPBC0061	Taipan	214	6471247	388905	292	-62	265	122	123	1	0.46	0.05	0.01	0.11	0.22
And								127	143	16	0.73	0.11	0.02	0.17	0.36
Including								141	143	2	2.39	0.46	0.06	0.71	1.52
SPBC0062	**Taipan**	**214**	**6471247**	**388900**	**292**	**-54**	**265**	**113**	**133**	20	0.62	0.10	0.02	**0.17**	**0.39**
Including								**131**	**133**	2	1.46	0.43	0.03	**0.67**	**1.69**
SPBC0063	**Taipan**	**298**	**6471210**	**388955**	**285**	**-56**	**267**	**35**	**52**	**17**	**0.63**	**0.06**	**0.01**	**AWR**	**AWR**
And								**92**	**95**	**3**	**0.44**	**0.06**	**0.01**	**AWR**	**AWR**
And								**123**	**125**	**2**	**0.77**	**0.09**	**0.02**	**AWR**	**AWR**
And								**146**	**148**	**2**	**1.53**	**0.74**	**0.03**	**AWR**	**AWR**
SPBC0064	**Taipan**	**346**	**6471155**	**389040**	**281**	**-55**	**270**	**78**	**81**	**3**	**1.35**	**0.21**	**0.04**	**AWR**	**AWR**

Hole No.	Zone	Total Depth	North	East	RL	Dip	Azim	From, m	To, m	Width m	Ni pct	Cu pct	Co pct	Pt g/t	Pd g/t
And								**176**	**181**	**5**	**0.78**	**0.06**	**0.02**	**AWR**	**AWR**
And								**190**	**192**	**2**	**0.56**	**0.05**	**0.01**	**AWR**	**AWR**
SPBC0065	**Taipan**	**346**	**6471279**	**388948**	**289**	**-63**	**270**	**41**	**101**	**60**	**0.39**	**0.04**	**0.01**	**AWR**	**AWR**
Including								**41**	**48**	**7**	**0.42**	**0.05**	**0.01**	**AWR**	**AWR**
Including								**74**	**80**	**6**	**0.46**	**0.05**	**0.01**	**AWR**	**AWR**
Including								**95**	**100**	**5**	**1.22**	**0.15**	**0.02**	**AWR**	**AWR**
SPBC0066	**Taipan**	340	6471601	388899	285	-60	270				**AWR**				
SPBC0067	Taipan	118	6471894	388574	285	-60	270				**AWR**				
SPBC0068	Taipan	112	6471894	388582	285	-80	270				**AWR**				
SPBC0069	Taipan	346	6471240	388948	288	-63	270	**39**	**74**	**35**	**0.48**	**0.05**	**0.01**	**AWR**	**AWR**
Including								**72**	**74**	**2**	**1.77**	**0.27**	**0.04**	**AWR**	**AWR**
And								**85**	**88**	**3**	**0.64**	**0.07**	**0.02**	**AWR**	**AWR**
SPBC0070	Taipan	124	6471240	388953	288	-75	270	**23**	**76**	**53**	**0.53**	**0.05**	**0.01**	**AWR**	**AWR**
And								**90**	**92**	**2**	**0.51**	**0.09**	**0.02**	**AWR**	**AWR**
SPBC0071	Taipan	184	6471275	388880	291	-60	275				**AWR**				
SPBC0072	Taipan	204	6471275	388890	291	-71	275				**AWR**				
SPBC0073	Taipan	214	6471340	388980	289	-55	260				**AWR**				
SPBC0074	Taipan	154	6471340	388982	289	-76	260				**AWR**				

NOVA DPEM Drilling

Hole No.	Zone	Total Depth	North	East	RL	Dip	Azim	From, m	To, m	Width m	Ni pct	Cu pct	Co pct
SFRD0557	DPEM 1	1048	6480500	518795	292	-65	270	-	-	-	NSI		
SFRD0559	**DPEM 1**	**1081**	**6480500**	**518996**	**292**	**-60**	**260**	-	-	-	**NSI**		

AWR – results awaited, NSI – no significant intercept, NA – Not assayed for nickel

The following Tables are provided to ensure compliance with the JORC code (2012) edition requirements for the reporting of exploration results.

Table 1: Section 1 - Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary

Criteria	JORC Code explanation	Commentary
Sampling techniques	*Nature and quality of sampling (e.g. 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.*	NOVA Exploration at Nova E28/1724 outside of the Nova/Bollinger area is sampled by a combination of RC, Diamond and RAB/AC drill holes on a nominal 400m (northing) x 100m easting grid spacing. Infill RAB/AC drilling where required is to 200m x 50m or 100m x 50m. To date total of 35 RC, 79 Diamond Holes and 1458 RAB/AC holes have been drilled. TAIPAN The Taipan trend at Polar Bear is sampled by 2 diamond drill holes. Holes are orientated east-west. Reconnaissance RC holes are orientated east-west. Shallow drilling to refusal is by RAB or aircore.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used	The drill hole collars and surface sample locations are picked up by handheld GPS. Drill samples were logged for lithological, weathering, wetness and contamination. Sampling was carried out under Sirius protocols and QAQC procedures as per industry best practice. Surface samples were logged for landform, and sample contamination. At Nova the drill hole collar locations are picked up by handheld GPS and corrected for elevation using LIDAR data. Diamond and RC holes are picked up by survey contractors
	Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information	Diamond core is HQ and NQ2 size, sampled on geological intervals (0.2 m to 1.2 m), cut into half (NQ2) or quarter (HQ) core to give sample weights under 3 kg. Samples were crushed, dried and pulverised (total prep) to produce a sub sample for analysis by four acid digest with an ICP/OES All Reverse Circulation, Rotary Air Blast and Air Core drilling is sampled using 4m composite samples, and where applicable 1m end of hole samples. Composite samples are taken to give sample weights under 3kg. Samples were crushed, dried and pulverised (total prep) to produce a representative 10g sub sample for analysis by aqua regia with ICP-OES or MS finish. The following elements are included Ag, Al, As, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cu, Fe, K, La, Mg, Mn, Mo, Na, Ni, P, Pb, Sb, Sc, Sr, Te, Ti, Tl, V, W, Zn QAQC protocols include the laboratory analysis of at least 10 – 20%of all samples. The Platinum Group Elements (PGE) are assayed by either NiS or Pb collector fire assay with ICP-MS finish. Aircore samples are composited at 4 m to produce a bulk 3 kg sample. Samples were crushed, dried, pulverised (total prep), and split to produce a 25 g sub sample which is analysed using aqua-regia digestion with ICP-MS finish with a 1 ppb detection limit.

Criteria	JORC Code explanation	Commentary
Drilling techniques	*Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	NOVA Regional drilling to date has been a combination of RC (35 holes) Diamond (79 holes) and rotary airblast (775 holes) and aircore (683). TAIPAN Drilling has been by a combination of diamond (2 holes), reconnaissance reverse circulation (26 holes) and rotary airblast (22) and aircore (81).
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed*	Diamond core recoveries are logged and recorded in the database. Overall recoveries are >95%. Drill sample recoveries are recorded as an average for each individual lithological unit logged and recorded in the database. Overall recoveries are good and there are no significant sample recovery problems. Aircore recoveries are logged visually as a percentage.
	Measures taken to maximise sample recovery and ensure representative nature of the samples	Diamond core is reconstructed into continuous runs on an angle iron cradle for orientation marking. Depths are checked against the depth given on the core blocks and rod counts are routinely carried out by the drillers. Samples are collected by plastic bag directly from the rig-mounted cyclone and laid directly onto the ground in rows of 10, with sufficient space to ensure no sample cross-contamination occurs. Drill cyclone and sample buckets are cleaned between rod-changes and after each hole to minimise down hole and/or cross-hole contamination.
	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.	Insufficient drilling and geochemical data is available at the present stage to evaluate potential sample bias. However Sirius protocols and QAQC procedures are followed to preclude any issue of sample bias due to material loss or gain.
Logging	*Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.*	Logging of diamond core and RC samples records lithology, mineralogy, mineralisation, structural (DDH only), weathering, colour and other features of the samples. Core is photographed in both dry and wet form. Logging of aircore records lithology, mineralogy and mineralisation. Geological logging of drill chip samples has been recorded for each drill hole including lithology, grainsize, texture, contamination, oxidation, weathering, and wetness.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Logging of drill chip samples records lithology, mineralogy, mineralisation, grainsize, texture, weathering, oxidation, colour and other features of the samples. Drill samples for each hole were photographed.
	The total length and percentage of the relevant intersections logged	All drillholes were logged in full to end of hole.
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	Core was cut in half (NQ2) and quarter core (HQ) onsite using an automatic core saw. All samples were collected from the same side of the core.

Criteria	JORC Code explanation	Commentary
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	All drilling samples were collected using scoop or spear method directly from bulk drill samples. Samples taken were both wet and dry. Surface samples were collected directly from hand dug locations. Samples taken were dry.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	The sample preparation follows industry best practice in sample preparation involving oven drying, coarse crush, sieve -177um (-80#) sufficient for duplicate 10g aqua regia digestion.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	At this stage of the project field QC procedures involve the review of laboratory supplied certified reference material and in house controls, blanks, splits and replicates are analysed with each batch of samples. These quality control results are reported along with the sample values in the final analysis report. Selected samples are also re-analysed to confirm anomalous results.
	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.	Field duplicates have been taken at the rate of 1:20. Samples are selected to weigh less than 3kg to ensure total preparation at the pulverisation stage.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	The sample sizes are considered to be appropriate to correctly represent the sought after mineralisation style
Quality of assay data and laboratory tests	*The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*	For core samples the analytical techniques used a four acid digest multi element suite with ICP/OES or ICP/MS finish (25 gram or 50 gram FA/AAS for precious metals). The acids used are hydrofluoric, nitric, perchloric and hydrochloric acids, suitable for silica based samples. The method approaches total dissolution of most minerals. Total sulphur is assayed by combustion furnace. Reverse circulation samples and bottom of hole RAB/AC drill samples are analysed using four acid digest multi element suite with ICP/OES or ICP/MS finish (25 gram or 50 gram FA/AAS for precious metals). The acids used are hydrofluoric, nitric, perchloric and hydrochloric acids, suitable for silica based samples. The method approaches total dissolution of most minerals. Total sulphur is assayed by combustion furnace. 4m composite samples from RAB/AC drilling are analysed using Aqua Regia digest multi element suite with ICP/OES finish, suitable for reconnaissance. This is a partial digestion technique. Surface samples and auger soil samples are analysed by portable XRF machine and Aqua Regia digest multi element suite with ICP/OES finish, suitable for the reconnaissance style sampling undertaken. Platinum group elements and gold were assayed following either Pb or NiS collection followed by ICP-MS finish.

Criteria	JORC Code explanation	Commentary
	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.	All soil samples have been analysed using a portable Innovex XRF, model: DP-6000-C. The instrument is calibrated for soil geochemistry and reads for 20 seconds on beam 1 and 30 seconds on beam 2.
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	Internal QAQC involves the reading of in-house standard reference material ever 20th sample, this data is captured in Sirius' database. Laboratory QAQC involves the use of internal lab standards using certified reference material, blanks, splits and replicates as part of the in house procedures. Sample preparation checks for fineness were carried out by the laboratory as part of their internal procedures to ensure the grind size of 85% passing 75 micron was being attained.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	The Sirius Exploration Director and Exploration Manager has visually verified significant intersections in samples from the Nova and Taipan prospects.
	The use of twinned holes.	No twinned holes have been drilled.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Primary data was collected for drill holes using a set of standard Excel templates on toughbook laptop computers using lookup codes. The information was sent to ioGlobal for validation and compilation into a SQL database server.
	Discuss any adjustment to assay data.	No adjustments or calibrations were made to any assay data used in this report.
Location of data points	*Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.*	NOVA Hole collar locations for resource and all diamond holes were surveyed by Whelans Surveyors of Kalgoorlie or Esperance Surveys using RTK GPS connected to the state survey mark (SSM) network. Elevation values were in AHD RL and a value of +2,000 m was added to the AHD RL by Sirius for local co-ordinate use. Expected accuracy is + or – 30 mm for easting, northing and elevation coordinates. Downhole surveys used single shot readings during drilling (at 18m, then every 30 m) and Gyro Australia carried out gyroscopic surveys using a Keeper high speed gyroscopic survey tool with readings every 5 m after hole completion. Stated accuracy is +-0.25o in azimuth and +-0.05o in inclination. QC involved field calibration using a test stand. TAIPAN Drill hole collar locations were recorded using handheld Garmin GPS. Elevation values were in AHD RL and values recorded within the database. Expected accuracy is + or – 5 m for easting, northing and 10m for elevation coordinates. Downhole surveys used single shot readings during drilling (at 18m, then every 30 m)
	Specification of the grid system used.	The grid system is MGA_GDA94 (zone 51), local easting and northing are in MGA.
	Quality and adequacy of topographic control.	Topographic surface uses handheld GPS elevation data, which is adequate at the current stage of the project. At NOVA the topographic surface uses LIDAR data, which is accurate +/- 0.50m

Criteria	JORC Code explanation	Commentary
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	The nominal drillhole spacing is project specific, refer to figures in text
	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.	The mineralised domains at Taipan have not yet demonstrated sufficient continuity in both geological and grade continuity to support the definition of Mineral Resource and Reserves, and the classifications applied under the 2012 JORC Code.
	Whether sample compositing has been applied.	Reverse Circulation, rotary airblast and aircore drilling samples are laid directly on the ground in 1m intervals (collected in plastic bags) in sequence, scoop sampling each of four consecutive sample piles and compositing into a single sample. For each drill hole a bottom of hole sample is also collected.
Orientation of data in relation to geological structure	*Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*	NOVA The RAB and aircore is drilled vertical or west dipping at 60 deg which is adequate for this early stage and nature of drilling to provide initial geological control on key lithology's and potential mineralisation. The diamond drilling has been dominantly to the west. TAIPAN The diamond holes are drilled -60^{o} to the east. The RAB and aircore is drilled vertical. The reverse circulation drilling has been to the west or east at varying inclinations.
	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.	No orientation based sampling bias has been identified in the data at this point.
Sample security	*The measures taken to ensure sample security.*	Chain of custody is managed by Sirius. Samples are stored and collected from site by Centurion transport and delivered to Perth, then to the assay laboratory. Whilst in storage, they are kept in a locked yard. Tracking sheets have been set up to track the progress of batches of samples.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	No review of the data management system has been carried out.

Table 1: Section 2: Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	NOVA Nova and Bollinger are located wholly within M28/376. The tenement was part of the Fraser Range JV between Sirius Gold Pty Ltd, a wholly owned subsidiary of Sirius Resources NL, and Ponton Minerals Pty Ltd. Sirius Resources NL through Sirius Gold Pty Ltd has a 100% interest in the ML. TAIPAN The Taipan prospect is located on tenements M63/230 and E63/1142 under Polar Metals, a wholly owned subsidiary of Sirius Resources. All Sirius tenements are within the Ngadju Native Title Claim (WC99/002).
	The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	The tenements are in good standing and no known impediments exist.
Exploration done by	Acknowledgment and appraisal of exploration by	NOVA

Criteria	JORC Code explanation	Commentary
other parties	other parties.	No previous systematic exploration had been undertaken at E28/1724 and M28/376 before the work by Sirius Resources. Taipan Historical drilling by Anaconda Nickel Ltd drilled a number of diamond and percussion drill holes along the interpreted ultramafic basal contact. Best results NP1 intercepted 23.05 m @ 0.56 % Ni and 0.07 % Cu, incl. 2.12 m @ 1.27 % Ni and 0.13 % Cu. Collar locations from historical drill holes have not been field verified. INCO conducted a reconnaissance small loop Slingram type EM survey. Six diamond holes were drilled.
Geology	Deposit type, geological setting and style of mineralisation.	Fraser Range (Nova, Crux, Centauri) Nickel - The global geological setting is a Proterozoic aged gabbroic intrusion(s) within metasediments situated in the Albany Fraser mobile belt. It is a high grade metamorphic terrane. The deposit style sought after is analogous to the recent Nova Ni-Cu-Co mafic hosted nickel-copper deposits. Polar Bear (Taipan) The geology at Polar Bear is dominated by complexly deformed Achaean greenstone assemblages of the Norseman-Wiluna Greenstone Belt which have been metamorphosed to upper greenschist facies. The Eudyne Mafic Sequence (EMS) consists of tightly folded ultramafic and mafic intrusives and extrusives with minor interflow sediments. The rocks are frequently talc-carbonate altered and moderately well foliated. The ultramafic rocks are typically komatiites and komatiitic basalt. The deposit style sought after is analogous to Kambalda-style nickel copper sulphide deposits.
Drill hole Information	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: • easting and northing of the drill hole collar • elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar • dip and azimuth of the hole • down hole length and interception depth • hole length.	Sample locations are shown in Figures in body of text. Refer to annexure 1 in body of text
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.	No averaging techniques or truncations were used. For RAB and aircore results a nominal 0.1% Ni lower cut-off is applied.
	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.	Samples are 4m composites or 1m composites if at end of hole (refusal).
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalent values are used for reporting exploration results.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this	Nickel sulphide mineralisation is found at the base of intrusions or within layers internal to the intrusions. In some instances sulphides may be locally remobilised into faults and fractures. Refer to Annexure 1 and Figures in body of text.

Criteria	JORC Code explanation	Commentary
	effect (eg 'down hole length, true width not known').	
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	Refer to Figures in body of text.
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	All Ni and Cu results are reported. For RC and Diamond drilling a lower cut-off of 0.3% Ni is used whilst for RAB/aircore drilling a 0.1% Ni cut off is used.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	All relevant exploration data is shown on figures in text and in Annexure 1.
Further work	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive	NOVA Electromagnetics will be conducted with loop configurations optimised once bedrock structural trends are determined. The SAMSON DPEM system is being used to define targets at depth. TAIPAN Downhole electromagnetics have been completed on the two diamond holes to aid drillhole targeting and a broad acre slingram array EM survey is planned.