ASX Announcement

Monday 19th September 2016





MONSOON DRILLING UPDATE

Key points

- First follow up drillholes fail to intersect material grades and widths of mineralisation
- Interpretation of current information suggests these holes may have been drilled parallel to, and not intersected, the high grade mineralisation intersected in previous drilling
- A second batch of assays due in the near future is from additional holes drilled along strike in the same direction
- Further diamond drilling in an easterly direction is being planned to provide further geological information

S2 Resources Ltd ("S2" or the "Company") advises that results have been received for the first eight reverse circulation (RC) holes and the first diamond hole drilled to follow up previous high grade gold mineralization at the Monsoon prospect. These holes, drilled on the first section and others close to the original high grade mineralized intercept of 66 metres @ 11.4g/t gold (uncut) in SPBC0313, did not intersect any material grades and widths of gold mineralisation.

These holes were drilled on the same section as the original aircore intercepts (holes SPBA2833 and SPBA3740), 20 metres north of this on the section containing SPBC0313 (the high grade RC intercept reported in the ASX announcement of 21st July 2016), and on a third section 20 metres to the north of this. All of these holes were drilled towards the west in the opposite direction to the original RC intercepts, which had been interpreted to define a steep easterly dipping mineralized zone (see Figure 1).

The best result in this follow up drilling was 1 metre @ 4.98g/t gold (see Annexure 1).

Routine evaluation of sampling practices and sample integrity undertaken prior to the ASX announcement of 21st July 2016 did not identify any significant issues with sample quality. As specified in Table 1 of that announcement, RC samples from SPBC0313 comprised both dry and wet samples.



Checking of this indicated there was no consistent relationship between sample contamination, wetness, or recovery with grade (which if present may suggest the possibility of contamination, smearing, dilution or upgrading), and a subsequent review has reaffirmed this.

Likewise, routine QAQC evaluation of laboratory assays undertaken prior to the ASX announcement of 21st July 2016 did not identify any significant issues with the analytical accuracy and precision. As specified in Table 1 of that announcement, the accuracy and precision of assays of samples from SPBC0313 were checked using certified reference standards, duplicates and blanks. Checking of this indicated that all assays were within acceptable limits of accuracy and precision, and a subsequent review has reaffirmed this.

The spatial distribution of assays received from the recent holes and the geological structures observed in diamond core collectively suggests that the mineralization may actually comprise discrete zones that dip to the west, and therefore the recent holes may have been drilled parallel to this (see Figure 2). However, the information currently available is insufficient to allow a definitive interpretation.

Results are still awaited for a further seven RC holes and three diamond holes drilled on four sections, including the original RC section, and three other sections located 40 metres, 60 metres and 100 metres north of this (see Figure 1). These were also drilled to the west and may not be any more informative.

A program of diamond core drilling, including twinning the previously announced high grade RC intercept in SPBC0313, is being planned to provide important geological and structural information that may clarify the geological interpretation described above.

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Competent Persons statement

The information in this report that relates to Exploration Results is based on information compiled by John Bartlett who is an employee of the company. Mr Bartlett is a member of the Australasian Institute of Mining and Metallurgy. Mr Bartlett has sufficient experience of relevance to the style 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 Bartlett consents to the inclusion in this report of the matters based on information in the form and context in which it appears.



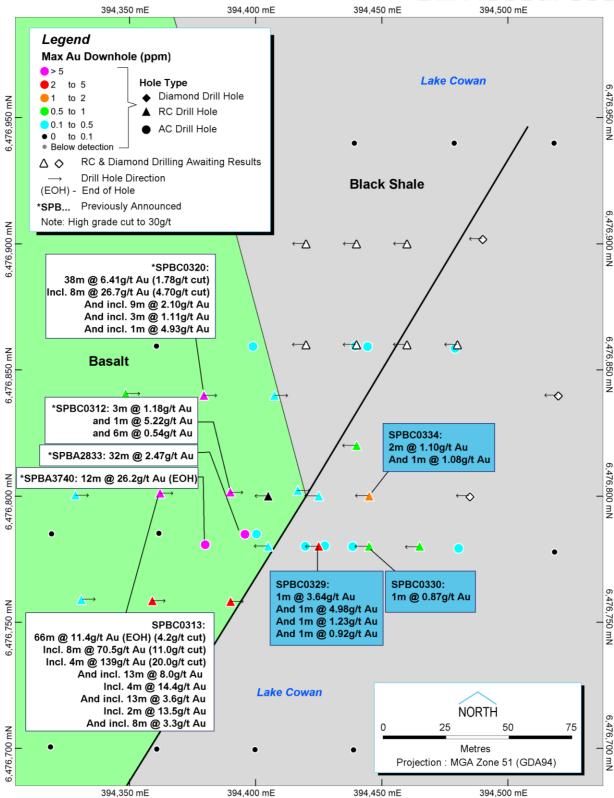


Figure 1. Plan of drillhole collars with key intercepts from previous and new drilling.



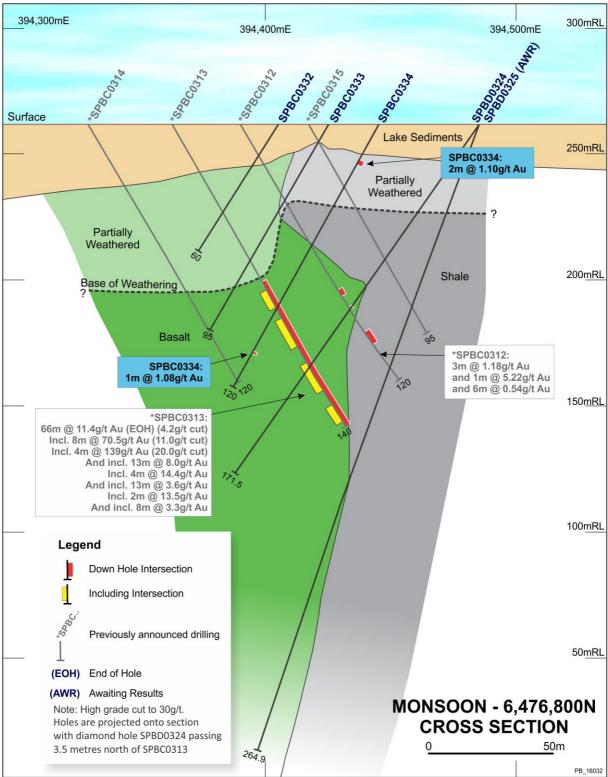


Figure 2. Cross section 6476800N showing original and new RC and diamond drilling.



Annexure 1

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

Hole No.	Zone	Total Depth	North	East	RL	Dip	Azim	From,	To, m	Width, m	Au, ppm	Comment
SPBC0312	Monsoon	120	6476800	394390	262	-60	90	75	78	3	1.18	
AND								85	86	1	5.22	
	AND							96	102	6	0.54	
SPBC0313	Monsoon	140	6476800	394360	262	-60	90	74	140	66	11.4	EOH (4.2 g/t cut)
		IN	CLUDING		•	•		77	85	8	70.5	(11.0 g/t cut)
		IN	CLUDING					77	81	4	139	(20.0 g/t cut)
		AND,	INCLUDING					90	103	13	8	
		IN	CLUDING					95	99	4	14.4	
		AND,	INCLUDING					110	123	13	3.6	
		IN	CLUDING					117	119	2	13.5	
		AND,	INCLUDING					130	138	8	3.3	
SPBC0314	Monsoon	120	6476800	394330	262	-60	90			NSI		
SPBC0315	Monsoon	95	6476800	394420	262	-60	90			NSI		
SPBC0316	Monsoon	115	6476760	394390	262	-60	90	59	60	1	1.1	
			AND					82	83	1	0.59	
			AND					95	98	1	1.09	
SPBC0317	Monsoon	110	6476760	394360	262	-60	90	38	39	1	2.22	
			AND					75	76	1	0.53	
SPBC0318	Monsoon	130	6476760	394330	262	-60	90			NSI		
SPBC0319	Monsoon	70	6476840	394410	262	-60	90			NSI		
SPBC0320	Monsoon	140	6476840	394380	262	-60	90	75	113	38	6.41	(1.78 g/t cut)
		IN	CLUDING					75	83	8	26.7	(4.70 g/t cut)
		AND,	INCLUDING					90	99	9	2.1	
		AND,	INCLUDING					103	106	3	1.11	
		AND,	INCLUDING					112	113	1	4.93	
SPBC0321	Monsoon	120	6476840	394350	262	-60	90	64	65	1	0.82	
SPBC0322	Monsoon	120	6477430	393810	262	-60	90			NSI		
SPBC0323	Monsoon	140	6477430	393770	262	-60	90	105	107	2	24.7	(15.5 g/t cut)
			AND					110	111	1	2.16	
SPBD0324	Monsoon	171.5	6476800	394485	262	-55	270			NSI		
SPBD0325	Monsoon	264.9	6476800	394485	262	-70	270			AWR		
SPBD0326	Monsoon	228.9	6476840	394520	262	-60	270			AWR		
SPBD0327	Monsoon	243.7	6476902	394470	262	-70	270			AWR		
SPBC0328	Monsoon	115	6476780	394405	262	-60	270			NSI		
SPBC0329	Monsoon	120	6476780	394425	262	-60	270	58	59	1	3.64	
			AND					62	63	1	4.98	



AND							115	116	1	1.23		
	AND							118	119	1	0.92	
SPBC0330	Monsoon	120	6476780	394445	262	-60	270	16	17	1	0.87	
SPBC0331	Monsoon	130	6476780	394465	262	-60	270			NSI		
SPBC0332	Monsoon	60	6476800	394405	262	-60	270			NSI		
SPBC0333	Monsoon	95	6476800	394425	262	-60	270			NSI		
SPBC0334	Monsoon	120	6476800	394445	262	-60	270	16	18	2	1.1	
	AND						103	104	1	1.08		
SPBC0335	Monsoon	110	6476820	394440	262	-60	270			NSI		
SPBC0336	Monsoon	110	6476860	394420	262	-60	270			AWR		
SPBC0337	Monsoon	120	6476860	394440	262	-60	270			AWR		
SPBC0338	Monsoon	120	6476860	394460	262	-60	270			AWR		
SPBC0339	Monsoon	120	6476860	394480	262	-60	270			AWR		
SPBC0340	Monsoon	150	6476900	394420	262	-60	270			AWR		
SPBC0341	Monsoon	130	6476900	394440	262	-60	270		_	AWR		
SPBC0342	Monsoon	120	6476900	394460	262	-60	270			AWR		
SPBC0343	Monsoon	30	6476900	394480	262	-60	270			ABD		

Table 1:

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

SECTION 1 SAMPLING TECHNIQUES AND DATA

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.	The mineralised trend at Monsoon is sampled by aircore, RC and diamond drilling with 20 to 40 m hole spacing and on nominal 20 to 80 m lines. Aircore holes were drilled to refusal. For RC sampling, a 1 metre split is taken directly from a cone splitter mounted beneath the rigs cyclone. The cyclone and splitter are cleaned regularly to minimise any contamination. A second reference split is also taken from each metre and stored on site. Aircore holes are sampled using an aluminium scoop to produce a four metre composite sample. Diamond core is drilled either Triple Tube PQ3 or HQ. Core is cut in half and sampled.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used	Sampling and QAQC procedures is carried out using S2 protocols as per industry best practice.



Criteria	JORC Code explanation	Commentary
	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	Reconnaissance aircore samples are composited at 4 m to produce a bulk 3 kg sample. Samples were 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. A 1m end of hole sample was collected for all aircore holes. Sample preparation was the same as above and were analysed using a four acid digest with an ICP/OES and fire assay. The following elements are included in the assay suite: Ag, Al, As, Au, 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. RC drilling is sampled a 1m "cone" split sample, to produce a bulk 3 kg sample. Diamond core is cut by an automatic Almonte core saw and bagged for assay preparation. Sample preparation was the same as for the aircore drilling. A nominal 50gram sub-sample was collected and analysed by Samples were to produce a sub sample for analysed by fire assay with an AA finish.
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, facesampling bit or other type, whether core is oriented and if so, by what method, etc).	Diamond is by either PQ3 or HQ core size. RC drilling is carried out using a face sampling hammer with a nominal diameter of 140mm. Aircore drilling is carried out using a 3 ½ inch blade bit. Where necessary a 3 ½ inch face sampling hammer is employed to penetrate through hard zones.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed	Diamond, RC and aircore sample recoveries are visually estimated qualitatively on a metre basis and are recorded in the database.
	Measures taken to maximise sample recovery and ensure representative nature of the samples	Sample quality is qualitatively logged on a metre basis, recording sample condition and contamination. Diamond core recovery is very good in the moderately weathered and fresh rock. Various drilling additives (including muds and foams) have been used to condition RC and aircore drill holes to maximise recoveries and sample quality. Drill cyclone, splitter in the case of RC or sample buckets in the case of Aircore 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. Drill samples are occasionally wet which may have resulted in sample bias due to preferential loss/gain of fine/coarse material.
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.	Lithology, alteration and veining is recorded directly to a digital format and imported into S2 Resources central database. The logging is considered of sufficient standard to support a geological resource.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Logging of RC Diamond and aircore records lithology, mineralogy, mineralisation, weathering, colour and other features of the samples, and is qualitative in nature.
	The total length and percentage of the relevant intersections logged	All drillholes were logged in full.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	The core was cut in half and sampled at intervals of between 0.5 and 1.25m



Criteria	JORC Code explanation	Commentary
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	Aircore samples consist of a 4 metre composite samples. RC was sampled by collecting 1 metre samples are collected via an onboard cone splitter. Samples were collected both wet and 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 All samples are pulverised utilising Essa LM1, LM2 or LM5 grinding mills determined by the size of the sample. Samples are dried, crushed as required and pulverized to produce a homogenous representative sub-sample for analysis. A grind quality target of 85% passing 75µm has been established and is relative to sample size, type and hardness.
	Quality control procedures adopted for all subsampling stages to maximise representivity of samples.	Quality control procedures include submission of Certified Reference Materials (CRM's), blanks and duplicate samples with each batch of samples. Selected samples are also re-analysed to confirm anomalous results. Grind size checks are routinely completed to ensure samples meet the industry standard of 85% passing through a 75µm mesh.
	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 are taken at regular intervals. 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.	Sample sizes are considered appropriate for gold mineralisation.
Quality of assay data and laboratory tests		RC and diamond core samples are analysed for Au only using a 40g or 50g Lead Collection fire Assay with either an ICP/MS or AAS finish.
	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or	4m composite samples from AC drilling are analysed for Au only using a 25g aqua-regia digestion with an ICP/MS finish. The method gives a near total digestion of the regolith intercepted in aircore drilling and is suitable for the reconnaissance style sampling undertaken.
	total.	All aircore holes have a 1m end-of-hole sample is collected for all AC holes. An extensive multi-element suite (including 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) is analysed using a four acid digest with an ICP/OES and ICP/MS finish. Au, Pt And Pd is analysed for using 25g or 50g Lead Collection fire assay with an ICP/MS finish.
	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.	No geophysical tools were used to determine any element concentrations used in this resource estimate.
	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.	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. Laboratory QAQC involves the use of internal lab standards using certified reference material, blanks, splits and replicates as part of the in house procedures.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	The Exploration Manager of S2 has visually verified significant intersections.
	The use of twinned holes.	No twin holes have been drilled on the project to date.



Criteria	JORC Code explanation	Commentary
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Primary data was collected using a set of standard Excel templates using lookup codes. The information was sent to an external database consultant for validation and compilation into a Perth based SQL database.
	Discuss any adjustment to assay data.	No adjustments or calibrations were made to any assay data reported.
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.	Drillhole collars were surveyed by DGPS with an accuracy is +/- 0.05m. All RC and Diamond holes are gyro surveyed downhole.
	Specification of the grid system used.	The grid system used at Polar Bear is GDA94 (MGA), zone 51.
	Quality and adequacy of topographic control.	A topographic surface has been created from aerial geophysical data, This has been calibrated with DGPS survey data. All reconnaissance drill holes have been corrected to this surface where DGPS pickup is not available.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Data spacing is currently defined by the geological criteria regarded appropriate to determine the extents of mineralisation. Reconnaissance AC drilling is on a nominal spacing of between 80m x 40m and 160m x 40m drill pattern.
	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.	Drilling is currently preliminary in nature had the mineralised domains 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.	No compositing has been applied to the exploration results.
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.	The drilling is not necessarily drilled perpendicular to the orientation of the intersected mineralisation. All reported intervals are downhole intervals and not calculated true width. This will be established with further drilling.
	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.	The orientation of mineralisation is currently unknown and as such no comment can be made as to any sampling bias as a result of the orientation of mineralised structures.
Sample security	The measures taken to ensure sample security.	Chain of custody is managed by S2 Resources. Samples in calico bags are bagged directly from the splitter at the drill rig by an S2R geotechnician. Samples are stored on site and either delivered by S2 personnel directly to the assay laboratory in Perth, or delivered to either the nominated Minanalytical depot at Kalgoorlie or Centurion Transport and delivered direct to the assay laboratory. Whilst in storage, they are kept on 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.	A review of the sample quality (recovery, wetness and contamination) as recorded by the geologist on the drill rig against assay results has been carried out with no obvious issues identified.



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.	The Monsoon prospect is located within Exploraiton License <i>E63/1142</i> , which is located within the Polar Bear Project, 100% owned by Polar Metals Pty Ltd, a wholly owned subsidiary of S2 Resources Ltd. All projects are situated 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 tenement is in good standing and no known impediments exist on tenement actively explored.				
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Gold Exploration Plutonic Operations Limited and Homestake Gold of Australia Limited conducted reconnaissance AC drilling (PBAC prefix) over Lake Cowan on predominantly 100 m drillhole spacing and 800 m line spacing from 1997-1999. Location of these drillholes cannot be verified as the collars are now mostly obscured. AC sampling was done by 4 m composites with 1 m re-splits on samples greater than 0.1 g/t. Samples were assayed by aquaregia digest with AAS finish although this cannot be verified as the original laboratory.				
Geology	Deposit type, geological setting and style of mineralisation.	The Polar Bear project is situated within the Archaean Norseman-Wiluna Belt which locally includes basalts, komatiites, metasediments, and felsic volcanoclastics. The primary gold mineralisation is related to hydrothermal activity during multiple deformation events. Indications are that gold mineralisation is focused on or near to the stratigraphic boundary between the Killaloe and Buldania Formation.				
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.	Refer to Annexure1 in body of text.				
Data aggregation methods In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.		All reported assays have been length weighted. A nominal 0.2 g/t Au lower cut-off is used to report AC intersections. A nominal 0.5 g/t Au lower cut-off has been has been used to report RC results. High grade results have been cut to 30 g/t Au for reporting the board intercepts, with both the top cut and uncut intercepts reported.				



Criteria	JORC Code explanation	Commentary
	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.	High grade gold intervals internal to broader zones of mineralisation are reported as included intervals.
	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 effect (e.g. 'down hole length, true width not known').	The trend of mineralisation at <i>Monsoon</i> is not known at present due to the lack of deeper drilling and the early stage of exploration. Refer to Annexure 1 and Figures in body of text.
Diagram	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.	The accompanying document is conserved to represent a balanced report with grades and/or widths reported in a consistent manner.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	No other exploration data collected to date is considered material or meaningful at this stage.
Further work	The nature and scale of planned further work (e.g. 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	Further diamond drilling, angled to the east, including twinning of SPBC0313 to ascertain gold mineralisation geometry.