



ASX ANNOUNCEMENT

1 April 2019

REVISED MCINTOSH MINERAL RESOURCE ESTIMATE AND ADDITIONAL UPDATES

Key Points

- Revised McIntosh Mineral Resource estimate completed – combined resources total **23.8 million tonnes grading 4.5% TGC** with 81% classified as Indicated.
- **42% increase** in material classified as Indicated and an overall **12% increase** in contained graphite.
- Revised Exploration Target estimate of 50 to 100 million tonnes grading 2% to 5% TGC with contained graphite ranging from 1 to 5 million tonnes¹, excluding the new Mineral Resource.
- McIntosh JV Feasibility Study focuses on confirming flake size distributions from newer, larger sample sets and flotation recovery test work.
- Scoping Study on Downstream business case well advanced and due for release in April 2019.
- New US initiative to widen Hexagon's graphite marketing reach into US markets.

Hexagon Resource Limited (ASX: HXG, “Hexagon”) is pleased to announce a revised Mineral Resource estimate for the McIntosh flake graphite project in northern WA, which has increased contained graphite by 12% and increased material classified as Indicated by 42%. It also provides an update on other operational activities.

The McIntosh project is a Joint Venture between Hexagon and Mineral Resources Limited (ASX: MIN, “MinRes”), with MinRes earning a 51% interest in the project through exploration and development.

1. Commentary

Since establishing a minimum potentially viable mineral resource for McIntosh of 20 million tonnes in February 2017, drilling programs executed by Hexagon in 2017 and MinRes in 2018 have largely focused on increasing the confidence of the key resources, Emperor, Wahoo and Longtom and collecting large samples of mineralisation for metallurgical test work. The modest resource increments since that time largely reflect that focus.

Hexagon's focus is on deposits that can be most easily commercialised. Drilling at Mahi Mahi intersected major widths of graphite, however, whilst a “technical success” in terms of major widths of graphite mineralisation, due to the very fine nature of the flake, Mahi Mahi is not included in the current Mineral Resource estimate based on Clause 49 of JORC 2012 guidelines. Opportunities may arise in the future as the overall sales strategy develops further.

Hexagon completed a systematic review of the Exploration Target estimate using new data from drilling and improved geological understanding on controls of mineralisation. The update provides an improved short-list of

¹ **Cautionary Statement:** The potential quantity and grade of the Exploration Targets is conceptual in nature, there has been insufficient exploration work to estimate a mineral resource and it is uncertain if further exploration will result in defining a mineral resource.



targets for further exploration, albeit the overall estimate has reduced from the original 2017 estimate. The Company is now able to focus on key targets like Marlin, as heritage clearance and environmental surveys are undertaken and areas become available for drilling.

Hexagon's Managing Director Mike Rosenstreich commented: "This revised resource estimate has significantly improved the confidence of the total resource within the project whilst achieving a modest 12% increment and maintaining the grade. This update will feed into the feasibility study currently being undertaken by MinRes.

"Subject to a positive feasibility study, Hexagon's position is to get McIntosh into production as quickly as possible. Following that, we will systematically carry out heritage clearance to prioritise further targets for drill testing to verify the project life potential as highlighted by the Exploration Target estimate."

The McIntosh Joint Venture's (**MJV**) other important focus is updating key technical parameters such as the flake size distribution for each of the Mineral Resources. Hexagon has been working with a flake size assessment based on examination of drill core and a 2016 graphite concentrate sample from Emperor. As more sample material has become available, more effort is being directed at characterising the flake size distribution for each deposit, which is an important technical and economic parameter of the project.

Whilst Hexagon's focus is very much on its downstream business development and providing support as required on the MJV activities, the Company is increasing its presence in the USA, leveraging off existing important technical relationships. New associations with US Critical Minerals LLC, Charge Minerals LLC and the engagement of several well credentialed US-based executives aims to raise Hexagon's graphite marketing presence in the US and related markets. This is planned as a "lead-in" for McIntosh products and could include utilising US-sourced graphite, from Charge Minerals, to fast-track the establishment of a Hexagon brand. This initiative complements and enhances the Company's strong network into Japan, South Korea, Taiwan and China.

2. MJV Revised Mineral Resource Estimate

Hexagon is pleased to report an updated mineral resource estimate for the MJV (51% MinRes and 49% Hexagon) located in Western Australia. The McIntosh Flake Graphite Project combined Mineral Resource now totals 23.8 million tonnes grading 4.5 % Total Graphitic Carbon (**TGC**). The updated Mineral Resource estimate was undertaken by MinRes, the Manager of the MJV. The revision is based on additional drilling results from:

- 2018 drilling comprising 10,683 metres of combined diamond core and reverse circulation drilling undertaken by MinRes at Emperor, Wahoo and Mahi Mahi (ASX 27 February 2019); and
- 2017 drilling comprising 2,306 metres of combined diamond core and reverse circulation drilling undertaken by Hexagon at Barracuda and Longtom (ASX 26 September 2017 & 29 January 2018).

The location of Mineral Resources and targets is presented in Figure 1. Consistent with previous estimates a 3% TGC cut-off grade was utilised as summarised in Table 1.

Table 1: McIntosh Flake Graphite Project Mineral Resource as at March 2019 reported by deposit and above a 3% TGC cut-off grade

Deposit	JORC Classification	Tonnes (Mt)	TGC %	Contained Graphite (Kt)
Emperor	Indicated	12.1	4.28	518
	Inferred	3.8	4.35	165
	Total	15.9	4.30	684
Wahoo	Indicated	1.3	3.97	51
	Inferred	-	-	-
	Total	1.3	3.97	51



Longtom	Indicated	5.1	4.93	253
	Inferred	0.8	5.25	40
	Total	5.9	4.97	293
Barracuda	Indicated	0.7	4.40	32
	Inferred	-	-	-
	Total	0.7	4.40	32
Total	Indicated	19.2	4.44	854
	Inferred	4.6	4.50	206
	Total	23.8	4.45	1,060

Note: Rounding may result in differences in totals for tonnage and grade

This estimate represents an 11.7% increase in terms of tonnes and contained graphite and a 42% improvement in the proportion of material classified as Indicated from Inferred compared to the Mineral Resource estimate reported to ASX on 25 May 2017 as detailed in Table 2.

Table 2: Comparison to previous Mineral Resource estimate.

Deposit	Resource Class	Mt	% TGC
Emperor	Indicated & Inferred	18.7%	-1.6%
Wahoo	Indicated & Inferred	-23.3%	-4.6%
Barracuda	Indicated & Inferred	-1.3%	-0.2%
Longtom	Indicated & Inferred	7.3%	-0.8%
Total		11.7%	-0.8%

In undertaking the Mineral Resource estimate, the likelihood of eventual economic extraction was considered in terms of possible open-pit mining, likely product specifications, possible product marketability and potentially favourable logistics to port and it was concluded that the McIntosh Project contains an Industrial Resource in terms of JORC Code 2012 Clause 49.

A range of graphite products is being considered by the MJV. Metallurgical test work completed to date indicates flake graphite concentrates produced would be amenable for sale into a variety of end-use markets including for lithium ion battery anode material (**BAM**), conductivity enhancement materials (**CEM**) for a range of battery applications, various industrial applications, including possible substitution for some proportion of synthetic graphite in uses such as UHP Electrodes utilised in electric arc furnaces.

The following reports from Hexagon are relevant to the potential saleability of McIntosh graphite concentrates: 5-Nines Graphite in Pilot Scale McIntosh Sample (17/12/2018), Building a Vertically Integrated Graphite Business (28/8/2018), Highly Encouraging Cell Cycling Results for McIntosh Graphite (17/7/18), New Results Demonstrate 99% Yields in Spheroidisation Tests (21/6/2018), Unique High Quality Crystallinity of McIntosh Graphite (6/3/2018), HXG Signs MoU for 30% Offtake and Stage 1 Project Finance (2/2/2018), McIntosh Graphite Easily Achieves 5N's Purity (18/1/2018), Test Work Program Highlights Premium Opportunities (29/11/2017), Expandable Large Flake Graphite at McIntosh (23/11/2017), McIntosh Large & Jumbo Graphite Flake Endowment (3/11/2017), Positive Preliminary Battery Test Work Results (16/8/2017), Pre-Feasibility Study Confirms Viability of McIntosh Project (31/5/2017) and Updated McIntosh Graphite Mineral Resource (25/5/2017).

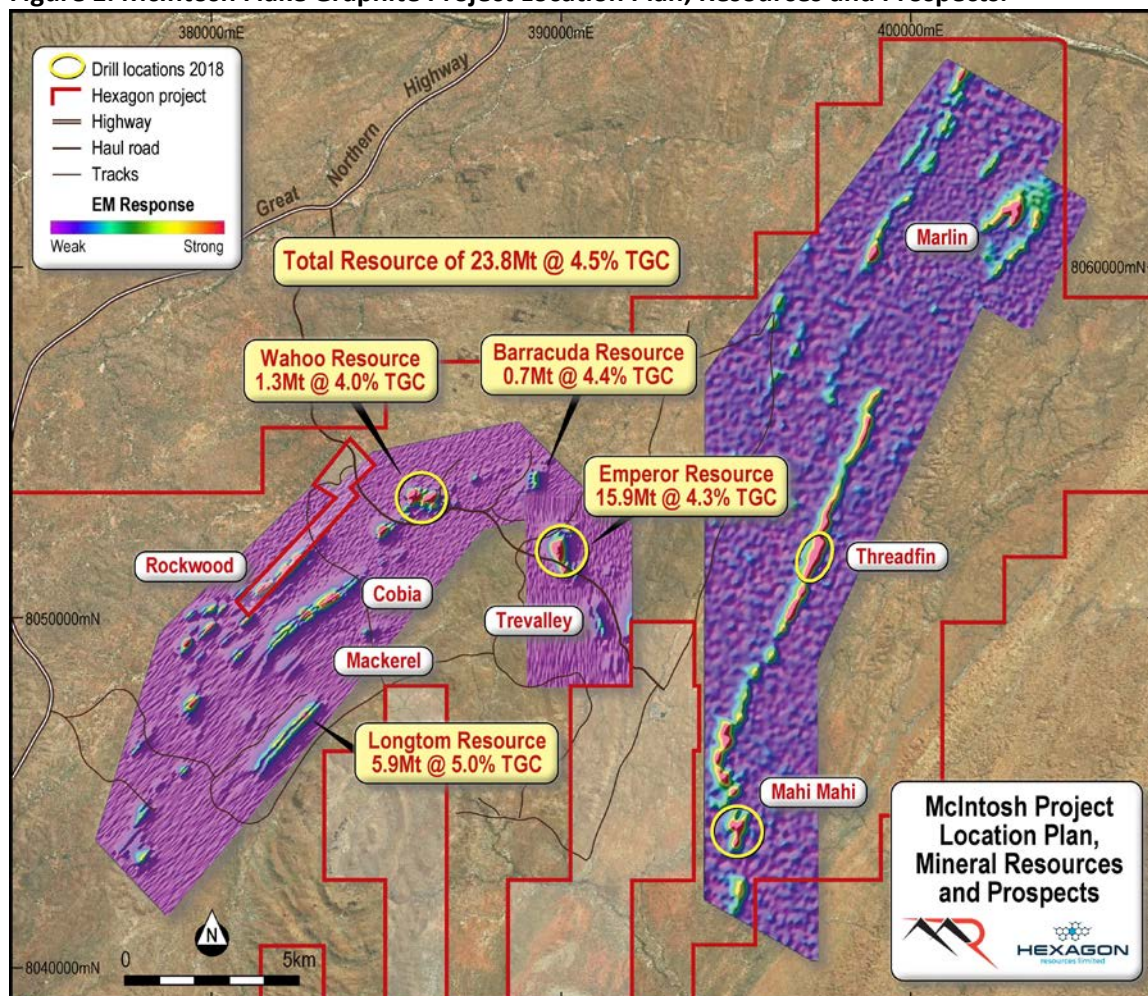
Metallurgical test work has been completed on samples from the Emperor and Wahoo deposits, and diamond drill samples from the Longtom and Barracuda deposits indicate similar geological and



mineralisation characteristics, albeit with varying flake size distributions. Metallurgical test work, currently focussed on Emperor is ongoing.

Attachment 1 provides details on the Mineral Resource estimate including the JORC Tables.

Figure 1. McIntosh Flake Graphite Project Location Plan; Resources and Prospects.



Competent Persons' Attribution

The information within this report that relates to exploration results and geological data at the McIntosh Project is based on information generated by Mr Chris Handley and Mr Shane Tomlinson. Mr Handley is an employee of Mineral Resources Limited and Mr Tomlinson is the former Geology Manager for Hexagon and was a consultant to Mineral Resources during the 2018 drilling program. Mr Handley is a Member of The Australasian Institute of Mining and Metallurgy and Mr Tomlinson is a Member of the Australian Institute of Geoscientists. They both, individually have sufficient experience relevant to the styles of mineralisation and types of deposits under consideration and to the activities currently being undertaken to qualify as a Competent Person(s) as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves and they consent to the inclusion of this information in the form and context in which it appears in this section of this report.

The information within this report that relates to Mineral Resource estimates at the McIntosh Project for the Emperor, Longtom and Barracuda deposits is based on information compiled by Mr Shane Tomlinson and Mr Mike Rosenstreich. Mr Tomlinson is the former Geology Manager for Hexagon and was a consultant to Mineral Resources during the 2018 drilling program, Mr Rosenstreich is a fulltime employee of Hexagon. Mr Tomlinson is a Member of the Australian Institute of Geoscientists and Mr Rosenstreich is a Fellow of The Australasian Institute of Mining and Metallurgy. They both, individually have sufficient experience relevant to the styles of mineralisation and types of deposits under consideration and to the activities currently being undertaken to qualify as a Competent Person(s) as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves and they consent to the inclusion of this information in the form and context in which it appears in this section of this report.



The information within this report that relates to Mineral Resource estimates at the McIntosh Project for the Wahoo deposit is based on information compiled by Mr Matthew Watson and Mr Mike Rosenstreich. Mr Watson and Mr Rosenstreich are full time employees of Mineral Resources Limited and Hexagon respectively. Mr Watson is a Member of the Australasian Institute of Mining and Metallurgy and Mr Rosenstreich is a Fellow of The Australasian Institute of Mining and Metallurgy. They both, individually have sufficient experience relevant to the styles of mineralisation and types of deposits under consideration and to the activities currently being undertaken to qualify as a Competent Person(s) as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves and they consent to the inclusion of this information in the form and context in which it appears in this section of this report.

3. Exploration Target Review

Hexagon has updated its Exploration Target estimate for the McIntosh Flake Graphite Project to account for recent drilling results. Drilling at Mahi Mahi intersected significant widths of mineralisation as modelled in the original Exploration Target (refer ASX Report 12 April 2017 for modelling parameters), but the flake size endowment was found to be predominantly very fine (<75 microns). Taking this into account as well other controls interpreted to be related to flake size such as the localised metamorphic grade, it was decided to review all of the Exploration Targets and take a conservative approach to remove Mahi Mahi and Threadfin and revise others such as Mackerel and Cobia. Marlin West was added on the basis improved geological confidence, including petrological data from surface samples with flakes exceeding 500 microns in length frequently observed.

This review process has generated nine targets for high-priority follow-up exploration, with an estimated 1 to 5 million tonnes of contained graphitic carbon in addition to the 1.1 million tonnes already delineated in Indicated and Inferred Mineral Resources reported above. The estimate summarised in Table 3 highlights a significant flake graphite endowment, reviewed rigorously with the benefit of new data and increased understanding of the geological controls for factors such as flake size.

Table 3. McIntosh Flake Graphite Project – Exploration Target Estimate.

Prospect	Tonnage Range		Grade Range (%TGC)
	Minimum	Maximum	
Emperor ¹	2	4	4.0 – 5.0
Wahoo ¹	1	2	4.0 – 5.0
Barracuda ¹	1	2	4.0 – 5.0
Cobia	3	6	2.0 – 5.0
Marlin	30	60	2.0 – 5.0
Marlin West	5	10	2.0 – 5.0
Rockcod	5	10	2.0 – 5.0
Mackerel	2	4	2.0 – 5.0
Trevally	1	2	2.0 – 5.0
Total	50	100	2.0 – 5.0

Note¹: This estimate is in addition to tonnes in the current defined Mineral Resources reported above.

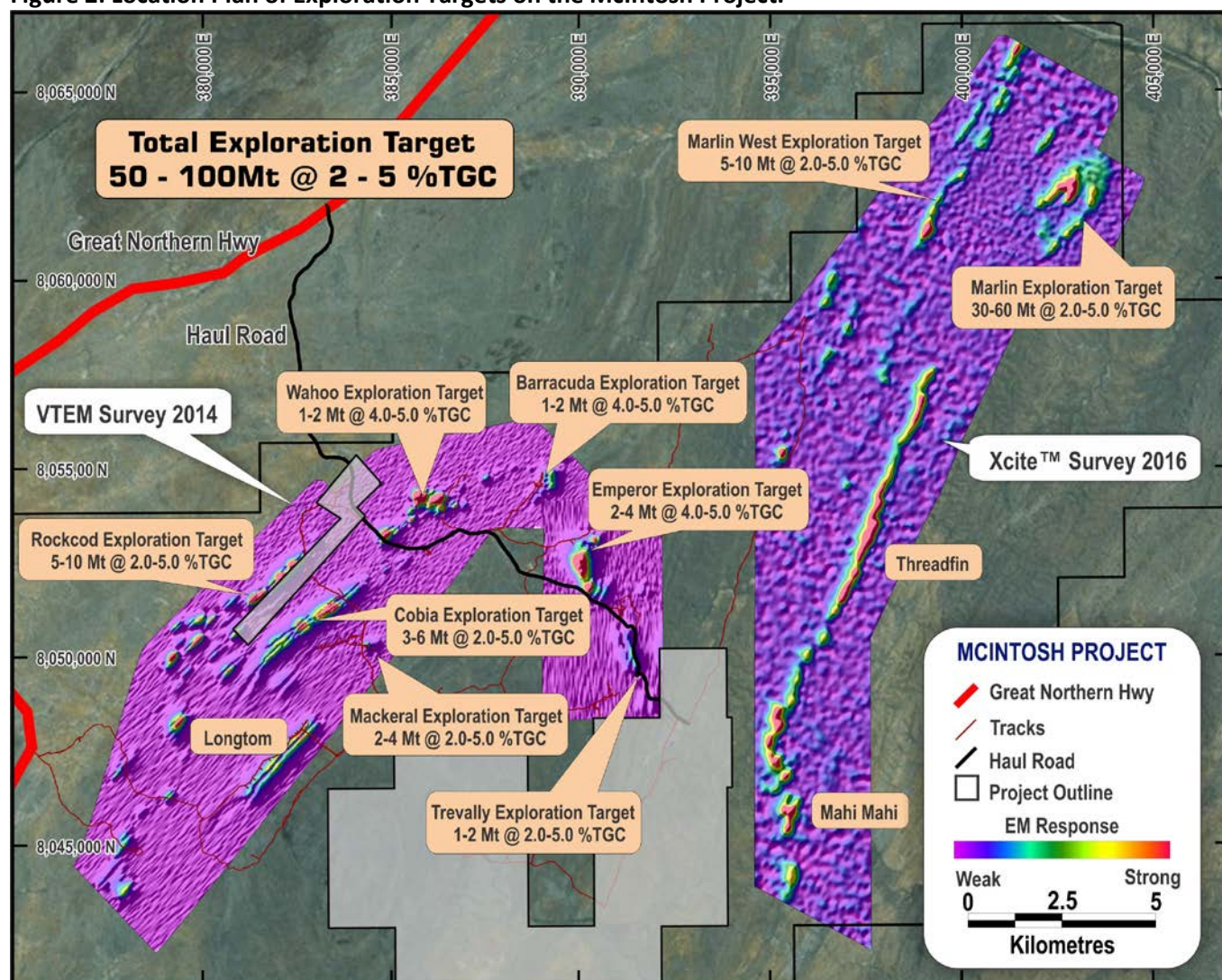
Cautionary Statement: The potential quantity and grade of the Exploration Targets is conceptual in nature, there has been insufficient exploration work to estimate a mineral resource and it is uncertain if further exploration will result in defining a mineral resource as determined by JORC 2012 guidelines.

The original Exploration Target estimate was determined using a combination of exploration data consisting of mapping and drilling or geophysical modelling of EM data collected from a VTEM survey completed in 2014 and Xcite survey completed in late 2016. Selected areas with a strong EM response have been modelled as “plates” to provide an indication of the approximate geometry of potential graphite mineralisation. Figure 2 shows the location of the Exploration Targets generated, overlain on coloured contours of the “late-time EM”



anomalism coloured using comparable channels from the VTEM and Xcite EM surveys. Full details are available in ASX Report dated 12 April, 2017.

Figure 2: Location Plan of Exploration Targets on the McIntosh Project.



Competent Persons Attribution

The information within this report that relates to exploration results, Exploration Target estimates and geological data at the McIntosh Project is based on information compiled by Mr Shane Tomlinson and Mr Mike Rosenstreich. Mr Tomlinson is the former Geology Manager for Hexagon and was a consultant to Mineral Resources during the 2018 drilling program and Mr Rosenstreich is a fulltime employee of Hexagon. Mr Tomlinson is a Member of the Australian Institute of Geoscientists and Mr Rosenstreich is a Fellow of The Australasian Institute of Mining and Metallurgy. They both, individually have sufficient experience relevant to the styles of mineralisation and types of deposits under consideration and to the activities currently being undertaken to qualify as a Competent Person(s) as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves and they consent to the inclusion of this information in the form and context in which it appears in this section of this report.



4. Other Activities

4.1 Upstream Feasibility Study Work

MinRes and Hexagon have collaborated on a metallurgical test work program which is underway. As more sample material has become available, more effort has been focussed on characterising the flake size distribution for each deposit.

Flake size distribution estimates by Hexagon are based on:

- Petrological flake size estimates based on 60 slides from Emperor; and
- A 2.8kg concentrate sample (HXGCon1) generated from a 200kg composite of drill core samples from Emperor. Note - the other available concentrate was overground, targeting a minus 100# (<150 micron) feedstock for BAM production.

The petrological data represents what is available in the rock and hence is important for resource modelling and estimating the insitu ore value. The concentrate data, generated by lab-scale batch tests, represents what might be achieved through a process plant. The majority of Hexagon's flotation test work (i.e. pre-mid 2017) was focussed on a high-grade, finer flake sized concentrate as specified for lithium-ion BAM feedstock. There was a high level of energy input into the various grinding components of that flow sheet generating a Fine-Medium flake size dominated concentrate. With the new understanding of McIntosh's natural, larger flake size endowment, and consistent with the Company's objective of targeting a more diverse concentrate product mix, the current metallurgical test work is focused on lower energy, gentle grinding to achieve coarse flake preservation.

Recent drilling has generated significantly more sample material for more definitive test work and MinRes is undertaking a similar dual "from the rock" and "from the plant" test work approach, with;

- A new petrological technique being employed to re-estimate the insitu flake endowment;
- Supplemented with MLA (Mineral Liberation Analysis) tests from drill core samples; and
- A series of preliminary roughing and cleaning flotation tests for different product grind sizes to assess the flake size distributions in the final concentrates after the crushing and grinding cycles.

This work is in progress and will form part of the final flow sheet design and project evaluation.

4.2 Downstream Scoping Study

The scoping study of the proposed downstream processing of graphite concentrates sourced from the MJV is well advanced and expected to be completed in April 2019.

The assumed inputs for the study include:

- a. Concentrates to be sourced from the MJV (Hexagon's 49% joint venture allocation);
- b. Purification as the initial process component comprising thermal purification technology on the basis of efficiency and low environmental impact;
- c. Three downstream process lines:
 - ✓ Battery materials – producing various d50 size classifications of spherical graphite for BAM and CEM;
 - ✓ Industrial materials – producing various size specifications to be used in blends to produce UHP electrodes, premium CEM for various kinds of batteries, refractories and lubricants; and
 - ✓ Expandable graphite precursor (+60 mesh) screening /packaging production.
- d. Site selection assessment is based on access to low cost, stable power supply, logistics, proximity (ideally with the plant site being either close to the upstream source or the major downstream customer) and access to skilled labour. On this basis, Hexagon has selected a potential site in Western Australia with ready access to Asian customers and another site in the USA, with low cost power and close to major end markets.



The objective of the Scoping Study is to provide a preliminary commercial assessment of the downstream business case to assist in “mapping out the detailed course” to advance the feasibility study. A pilot scale thermal purification facility is already under construction in the USA by NAMLab and is planned to be available to Hexagon to continue the downstream Feasibility Study and start product qualification process for Hexagon’s planned downstream products.

4.3 New US Initiatives

Hexagon regards the US as a major potential market for its downstream products as a well as a possible site for its downstream processing facility. There is increasing concern in the US on sourcing critical minerals as exemplified by the “Presidential Executive Order on a Federal Strategy to Ensure Secure and Reliable Supplies of Critical Minerals” (20 December 2017). Graphite is listed as a critical mineral and this creates opportunities for US based downstream processing of either MJV or potentially US sourced graphite concentrates. HXG is leveraging off existing relationships such as its close technical partnership with US based NAMLab² to create a “graphite presence” in the US as a lead-in for its McIntosh sourced materials. To this end it has recently:

- Collaborated with US Critical Minerals LLC (USCM) whose principals are well connected, experienced graphite development and marketing executives;
- Taken an equity position in private US Company, Charge Minerals, along with USCM to develop new graphite marketing opportunities for MJV sourced material and possibly also from new US graphite projects controlled by Charge; and
- Engaged two well qualified, North American-based executives to identify and advance new graphite market opportunities in USA, Asia and Europe.

Hexagon regards marketing as a key success factor, and these initiatives are intended to complement its already strong relationships with intermediate and end-users in Japan, South Korea, Taiwan and China. Hexagon is engaged with several trading and end-user groups, which includes entities across the battery and industrial applications discussing opportunities for both sales agreements as well as technical collaborations to develop facilities and market acceptance for some of the proposed product lines.

Hexagon is attempting to create a strong marketing team across Asia and the US as a platform to scale-up its marketing activities as increased volumes of concentrate and downstream product samples become available from the MJV and potentially, more quickly, from US projects to assist in establishing the “Hexagon Graphite” brand.

5. Competent Persons Attribution

5.1 Exploration Results and Mineral Resource Estimates

The information within this report, excluding Sections 2 and 3, that relates to exploration results, Exploration Target estimates, geological data and Mineral Resources at the McIntosh Project is based on information compiled by Mr Mike Rosenstreich who is an employee of the Company. Mr Rosenstreich is a Fellow of The Australasian Institute of Mining and Metallurgy and has sufficient experience relevant to the styles of mineralisation and types of deposits under consideration and to the activities currently being undertaken to qualify as a Competent Person(s) as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves and he consents to the inclusion of this information in the form and context in which it appears in this report.

5.2 Metallurgical Test Work Outcomes

The information within this report that relates to metallurgical test work outcomes and processing of the McIntosh material is based on information provided by a series of independent laboratories. Mr Michael Chan

² *Hexagon has a confidentiality obligation not to disclose the identity of the organisation referred to NAMLab. It is a well credentialed, ISO accredited test work and speciality graphite processing facility based in the USA.



and Mr Rosenstreich (referred to above) managed and compiled the test work outcomes reported in this announcement. Mr Chan as well as a highly qualified and experienced researcher at NAmLab planned, supervised and interpreted the results of the metallurgical test work. Mr Chan is a Metallurgical Engineer and a Member of the Australasian Institute of Mining and Metallurgy. Mr Chan and the NAmLab principals have sufficient relevant experience relevant to the style of mineralisation and types of test-work under consideration and to the activities currently being undertaken to qualify as a Competent Person(s) as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves and have consented to the inclusion of this information in the form and context in which it appears in this report.

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Attachments:

Appendix 1: JORC Table 1 for the Emperor Resource Estimate

Appendix 2: JORC Table 1 for the Wahoo Resource Estimate

Appendix 3: JORC Table 1 for the Longtom Resource Estimate

Appendix 4: JORC Table 1 for the Barracuda Resource Estimate

Appendix 1: JORC Table 1 for the Emperor Resource Estimate - February 2019

Section 1 Sampling Techniques and Data

Criteria	JORC Code Explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> Nature and quality of sampling Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. 	<p>1. Reverse Circulation</p> <ul style="list-style-type: none"> RC drilling used high pressure air and a cyclone with a rotary splitter. Samples were collected at one-metre intervals. All graphitic intervals were submitted for analyses. Duplicate and standards analysis were completed and no issues identified with sampling reliability. Samples were sent to the ALS laboratory in Perth for assay preparation and then sent to ALS in Brisbane, Vancouver and Ireland for Total Graphitic Carbon (TGC) analyses. All samples were pulverised to better than 85% passing 75µm with a 10g aliquot taken for assay. Sampling was guided by Hexagon and MRL's protocols and QA/QC procedures. RC drilling samples of 3 to 5kg weight were shipped to the laboratory in plastic bags; samples were pulverised and milled for assay. <p>2. Diamond Drilling</p> <ul style="list-style-type: none"> HQ₃ drill core samples were collected at one-metre intervals. All graphitic intervals were submitted for analyses. Core samples were quarter split by ALS using a diamond bladed saw and sent to the ALS laboratory in Perth for assay preparation and then sent to Nagrom laboratories in Perth for Total Graphitic Carbon (TGC) analyses. Core samples collected prior to 2018 were analysed by ALS in Brisbane. All samples were pulverised to better than 85% passing 75µm with a 10g aliquot taken for assay. Duplicate samples, CRM standards and blank material (washed quartz sand) were used during the drill programs. Duplicates collected after each 50 samples. Standards were inserted for samples ending in *00,*20,*40,*60 and *80 and blanks for samples ending in *01,*21,*41,*61 and *81. Sampling was guided by Hexagon and MRL's protocols and QA/QC procedures.
Drilling Techniques	<ul style="list-style-type: none"> 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). 	<p>1. Reverse Circulation</p> <ul style="list-style-type: none"> From 2012 to 2018 a total of 24 RC holes have been completed for 2,686 metres. All RC drilling was completed with face sampling hammers and collected through a cyclone. Sample recovery was estimated as a percentage of the expected sample, sample state recorded (dry, moist or wet), samples tested with 10:1 HCl acid for carbonates and graphite surface float. In 2017 drilling was completed by Egan drilling

		<p>using an X400 drill rig and United Drilling Services using a DE840 drill rig.</p> <ul style="list-style-type: none"> In 2018 drilling was completed by Mt Magnet Drilling using a Hydco 1300 drill rig. <p>2. Diamond Drilling</p> <ul style="list-style-type: none"> RC pre-collars were drilled in preparation for HQ₃ diamond tails, for a total of 3,289.8m from 29 holes. A total of 41 diamond holes for 5,167.9 metres has been completed between 2012 and 2018 HQ₃ core was collected using a 1.5m or 3m core barrel depending on ground conditions. Drilling was completed by Terra Drilling using a Hanjin Powerstar 7000 track mounted rig and Mt Magnet Drilling using a Hydco 650 drill rig. Core orientation was recorded using a Reflex EZ Shot instrument.
Drill sample recovery	<ul style="list-style-type: none"> <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i> <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i> <i>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.</i> 	<p>1. RC Drilling</p> <ul style="list-style-type: none"> A face sampling hammer was used to reduce contamination at the face. 1m drill chip samples, weighing between 3-5kg were collected in sequentially numbered bags. Split samples were recovered from a cyclone and rig-mounted cone splitter. The sample recovery and physical state were recorded. Every interval drilled is represented in an industry standard chip tray that provides a check for sample continuity down hole. <p>2. Diamond drilling</p> <ul style="list-style-type: none"> Core recoveries were measured for each run between core blocks and measurements recorded.
Logging	<ul style="list-style-type: none"> <i>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.</i> <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i> <i>The total length and percentage of the relevant intersections logged.</i> 	<ul style="list-style-type: none"> All RC and diamond drilling was logged for geology in the field by qualified geologists. Lithological and mineralogical data was recorded for all drill holes using a coding system developed specifically for the Project. Primary and secondary lithologies are recorded in addition to texture, structure, colour, grain size, alteration type and intensity, estimates of mineral quantities, graphite intensity and sample recovery. The oxidation zone is also recorded. No adjustments have been made to any assay data Geological logging is qualitative in nature. Diamond drill logging also recorded recovery, structure and geotechnical data. Diamond core was orientated using the Reflex orientation tool. All core was orientated and marked up in preparation for cutting. Core was photographed both wet and dry.
Sub-sample techniques and sample preparation	<ul style="list-style-type: none"> <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i> <i>For all sample types, the nature, quality and appropriateness of the</i> 	<p>1. RC Drilling</p> <ul style="list-style-type: none"> All samples were marked with unique sequential sample number RC drilling samples were bagged at the drill site in calico bags with a second outer plastic bag to prevent loss of fines. The sample sizes are considered to be appropriate to the grain

	<p><i>sample preparation technique.</i></p> <ul style="list-style-type: none"> • <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i> • <i>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.</i> • <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i> 	<p>size of the material being sampled.</p> <ul style="list-style-type: none"> • 1m RC drilling samples were submitted to either Actlabs or ALS laboratories in Perth. The samples were riffle split on a 50:50 basis, with one split pulverised and analysed for Total Graphitic Carbon (TGC), Total Carbon (TC) and Total Sulphur (TS) using a LECO Furnace, and the other split held in storage. • For RC samples, standards and field duplicates were inserted at an approximate rate of 1 in every 20 samples collected. Duplicate assay results exhibit good correlation with the original assays and no consistent bias is evident. • Sample preparation: <ol style="list-style-type: none"> 1. Coarse crush using a jaw crushed to better than 70% passing 6mm. 2. For samples exceeding 3kg received mass, riffle split using a Jones Riffle Splitter 50:50 3. Pulverise up to 3kg of coarse crushed material to better than 85% passing 75µm particle size 4. Small aliquot (~10g) taken for assay. <p>2. Diamond Core</p> <ul style="list-style-type: none"> • Diamond drill core was cut into half core (used for metallurgical testing) and the remaining half sawn into quarter core using diamond blade core-saw. Quarter core was used for samples and duplicates. Core cutting was carried out by ALS in Perth in 2018 and by Hexagon in prior years. • Duplicate assay results exhibit good correlation with the original assays and no consistent bias is evident. • Sample preparation: <ol style="list-style-type: none"> 1. Coarse crush using a jaw crushed to better than 70% passing 6mm. 2. For samples exceeding 3kg received mass, riffle split using a Jones Riffle Splitter 50:50 3. Pulverise up to 3kg of coarse crushed material to better than 85% passing 75µm particle size 4. Small aliquot (~10g) taken for assay. • Sampling procedures and sample preparation represent industry good practice:
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> • <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i> • <i>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.</i> 	<ul style="list-style-type: none"> • The assaying and laboratory procedures used are appropriate for the material tested. • Sampling was guided by Hexagon and MRL's protocols and QA/QC procedures. • For RC samples, standards and field duplicates were inserted at an approximate rate of 1 in every 20 samples collected. • Field duplicates were taken from the coarse reject of processed diamond core samples at a rate of 5 every 100 samples, standards at a rate of 5 every 100 samples and blanks at 2 every 100 samples. • Statistical analysis of standards, blanks and duplicates during the QAQC process showed that the data was satisfactory.

		<ul style="list-style-type: none"> No issues were identified with sampling reliability
Verification of sampling and assaying	<ul style="list-style-type: none"> <i>The verification of significant intersections by either independent or alternative company personnel.</i> <i>The use of twinned holes.</i> <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> <i>Discuss any adjustment to assay data.</i> 	<ul style="list-style-type: none"> QA/QC checks show that all samples are within acceptable limits. No adjustments to assay data have been made based on the analysis of duplicates, standards and blanks. Standards from ALS and Nagrom laboratories were found to be acceptable. Duplicate analysis was completed and no sampling issues were identified. CSA verified several graphite intersections in core and RC chip samples during a visit to Hexagon's Joondalup warehouse during January 2015. Optiro observed graphite intervals at Hexagon's O'Connor warehouse in 2017 as part of a resource audit. During a site visit in October 2015, a geological consultant from CSA verified that the diamond drilling, geological logging and sampling practices were of industry standard. The consultant also verified graphite intersections in core samples. No external verification was completed on data collected during 2018. However, the same sample protocols were adopted Analysis from one pair of twin holes drilled at Longtom resource noted a lower graphite content in the RC samples when compared with diamond core. It is suggested that RC samples are biased due to the loss of fine material. The majority of samples used in the estimation for Emperor are diamond core. The database is hosted in a SQL backend database, ensuring that data is validated as it is captured and exports are produced regularly. Assay results are merged into the database from the lab certificates limiting transcription or mapping errors from occurring. No adjustments have been made to the results.
Location of Data points	<ul style="list-style-type: none"> <i>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.</i> <i>Specification of the grid system used.</i> <i>Quality and adequacy of topographic control.</i> 	<ul style="list-style-type: none"> 45 Collars were surveyed using Differential GPS by a surveyor from Savannah Nickel mines for the 2015 program and a contract surveyor (MNG survey) from Broome. All 2018 drill hole collars were surveyed by MNG Survey using a Differential GPS. The degree of accuracy of drill hole collar location and RL is estimated to be within 0.1m for DGPS. 3 collars were surveyed using a handheld Garmin 62S and Garmin 76c Global Positioning System (GPS) with a typical ± 5 metres accuracy. Topography from contours generated from a Lidar survey was used to validate collar points and assign RL values to the 3 holes surveyed by GPS that had an RL >2m different to the topography. Downhole surveys completed for all holes where possible (48 holes). EZshot survey data was used where downhole surveys were not

		<p>successful. The majority of holes used in the resource have been downhole surveyed using a north seeking gyro by ABIM Solutions.</p> <ul style="list-style-type: none"> • The map projection used is the Australia Geodetic MGA 94 Zone 52.
Data spacing and distribution	<ul style="list-style-type: none"> • <i>Data spacing for reporting of Exploration Results.</i> • <i>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.</i> • <i>Whether sample compositing has been applied.</i> 	<ul style="list-style-type: none"> • Drill spacing on an approximate 40m by 40m grid throughout the majority of the deposit, dropping to 40m across strike x 80m along strike to the south of the deposit. • Geological interpretation and mineralisation continuity analysis indicates that data spacing is sufficient for definition of a Mineral Resource.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> • <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i> • <i>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.</i> 	<ul style="list-style-type: none"> • Holes generally drilled dipping at -60° targeting the fold hinge and limbs. • Diamond drill core has been orientated using a Reflex ACE tool (9Act II), with α and β angles measured and positioned using a Kenometer. • The relationship between the drilling orientation and the orientation of key mineralised structures is not considered to have introduced a sampling bias.
Sample Security	<ul style="list-style-type: none"> • <i>The measures taken to ensure sample security.</i> 	<ul style="list-style-type: none"> • Unique sample number was retained during the whole process • RC samples were placed into calico bags and then into plastic bags prior to being put into bulka bags on pallets. The bulka bags were then transported by road to ALS laboratories in Perth. Preparation was completed by ALS in Perth and then transferred through internal ALS systems to ALS Brisbane, Vancouver and Ireland for analysis • Diamond core was sent to ALS in Perth for cutting and preparation and then send to Nagrom in Perth for analysis. • Drill core transported to ALS in Perth by road train in stacked core trays, secured to pallets with metal strapping. • The sample security is considered to be adequate.
Audits or reviews	<ul style="list-style-type: none"> • <i>The results of any audits or reviews of sampling techniques and data.</i> 	<ul style="list-style-type: none"> • Sampling techniques and data collected methods have been audited by CSA during a site visit in October 2015 • Field data is managed by an independent data management consultancy Rocksolid Solutions. • All data collected was subject to internal review • No external audits or reviews were completed on work completed in 2018.

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	<ul style="list-style-type: none"> Drilling at the Emperor deposit occurred on exploration leases E80/3864 and E80/4841. These tenements are held by McIntosh Resources Pty Ltd who is a wholly owned subsidiary of Hexagon Resources. Hexagon Resources entered into a joint venture arrangement with MRL who are the managers of exploration on the project.
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> The East Kimberley has been largely explored for base metals and diamonds with no active previous exploration for graphite. Graphite had been noted by Gemutz during regional mapping in the Mabel Downs area for the BMR in 1967, by Rugless mapping and RAB drilling in the vicinity of Melon Patch bore, to the east of the Great Northern Highway in 1993 and has been located during nickel exploration by Australian Anglo American Ltd, Panoramic Resources Ltd and Thundelarra Resources Ltd over the last 20 years.
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> The McIntosh Project graphite schist horizons occur in the high grade terrain of the Halls Creek Mobile Zone of Western Australia. The host stratigraphy is the Tickalara Metamorphic which extend for approximately 130 km along the western side of the major Halls Creek Fault. The metamorphic rocks reach granulite metamorphic facies under conditions of high-temperature and high pressure although the metamorphic grade in the McIntosh Project area appears to be largely upper amphibolite facies with the presence of key minerals such as sillimanite and evidence of original cordierite. Hexagon had identified potential graphite schist horizons based on GSWA mapping and EM anomalism over a strike length in excess of 15km within the project area, with potential for an additional 10km strike length of graphite bearing material from lower order EM anomalism.
Drill hole Information	<ul style="list-style-type: none"> A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes: <ul style="list-style-type: none"> easting and northing of the drillhole collar elevation or RL (elevation above sea level in metres) 	<ul style="list-style-type: none"> Between 2012 to 2018 a total of 24 RC holes have been completed for 2,686 metres RC pre-collars were drilled for HQ₃ diamond tails for a total of 3,289.8m from 29 holes. A total of 41 diamond holes for 5,167.9 metres has been completed between 2012 and 2018 Hole locations tabulated and reported in the body of the report.

	<ul style="list-style-type: none"> of the drillhole collar dip and azimuth of the hole down hole length and interception depth hole length. 	
Data aggregation methods	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Data compiled in excel and validated in Datashed by an external data management consultancy. RC samples were all 1m in length, Diamond core samples vary between 1m and 2m samples prior to 2018. All diamond core collected in 2018 are sampled on 1m intervals. Metal equivalents are not reported as this is an industrial mineral project where the mineral properties define grade (e.g. flake size and purity). A nominal 3% Total Graphitic Carbon cut-off has been applied in the determination of significant intercepts
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> If the geometry of the mineralisation with respect to the drillhole 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. 	<ul style="list-style-type: none"> Mineralised widths at Emperor are estimated to be typically between 5m and 70m, compared to sample widths used of between 1m and 2m. There is a very close relationship between the graphitic schist unit and Total Graphitic Carbon (TGC%) assays. The presence of graphitic schist is clearly evident in both the RC chips and diamond drill core so that the assay widths can be clearly related to the geological logs. The graphitic schist horizon has been interpreted as an anticlinal fold. Angled drill holes (generally 60°) have targeted the mineralised unit with the priority to intersect the limbs perpendicular to the strike of the graphitic schist horizon, although in some areas this was not possible and holes were drilled down dip. However interpreted EM data and the width of intersections where holes were drilled perpendicular to the unit have allowed for a good indication of unit thickness to be made and applied in areas where the information is not available.
Diagrams	<ul style="list-style-type: none"> 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 drillhole collar locations and appropriate sectional views. 	<ul style="list-style-type: none"> Not relevant as reporting a Mineral Resource.
Balanced reporting	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Exploration results are not being reported for the Mineral Resources area.

	<i>reporting of Exploration Results.</i>	
Other substantive exploration data	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The September 2014 VTEM Supermax survey over the McIntosh Flake Graphite Project covered a total of 642 line kilometres and identified a total of 12 high-priority anomalies. Five of these were previously identified by induced polarisation (IP) and historical electromagnetic (EM) techniques and confirmed to be flake graphite schist by geological field mapping, petrographic analysis, rock chip sampling and exploration drilling. VTEM geophysical work was carried out by Geotech Limited with the data validated and processed by Southern Geoscience Consultants (SGC).
Further work	<ul style="list-style-type: none"> The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). 	<ul style="list-style-type: none"> Test EM anomalies along strike for potential extensions to mineralisation Program to assess moisture content of Emperor material. Multi-element analysis of mineralisation and waste material

Section 3 Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
Database integrity	<ul style="list-style-type: none"> Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. <p>Data validation procedures used.</p>	<ul style="list-style-type: none"> Primary data was captured into spreadsheet format by the supervising geologist, validated and sent to Rocksolid to load into the McIntosh database. Any errors identified by Rocksolid were sent to MRL geology for rectification. Database extracted as an .mdb access file from Datashed and validated before importing into Surpac.
Site Visits	<ul style="list-style-type: none"> Comment on any site visits undertaken by the Competent Person and the outcome of those visits. 	<ul style="list-style-type: none"> Numerous site visits were completed by S. Tomlinson during the 2016 and 2018 drilling period. The diamond and RC drill rigs were inspecting, sampling procedures checked, RC chips and diamond core logged. The drill hole locations were in positions as per the database
Geological interpretation	<ul style="list-style-type: none"> Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. <p>The factors affecting continuity both of grade and geology.</p>	<ul style="list-style-type: none"> Geological interpretation based on lithology logging, structural logging, geochemical sampling, prospect scale surface mapping and modelled VTEM data collected during the 2014 VTEM Supermax survey. Drill coverage to ~40m x 40m. Mineralisation wireframe was interpreted using a nominal 3% TGC cut-off grade. Internal dilution in the mineralised envelope has been modelled as three domains. Modelling of mafic intrusive bodies was also completed and used to constrain mineralisation. The base of oxidation was modelled as part of the Emperor resource. Confidence in the grade and geological continuity is reflected in the Mineral Resource

		classification.
Dimensions	<ul style="list-style-type: none"> <i>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.</i> 	<ul style="list-style-type: none"> The Emperor resource extends 550m north-northwest to south-southeast. The mineralisation occurs within an anticline of the hosting graphite schist units ranging in thickness between 5 and 70m. Mineralisation is open along strike and at depth along the fold limbs.
Estimation and modelling techniques	<ul style="list-style-type: none"> <i>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.</i> <i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i> <i>The assumptions made regarding recovery of by-products.</i> <i>Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).</i> <i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i> <i>Any assumptions behind modelling of selective mining units.</i> <i>Any assumptions about correlation between variables.</i> <i>Description of how the geological interpretation was used to control the resource estimates.</i> <i>Discussion of basis for using or not using grade cutting or capping.</i> <i>The process of validation, the</i> 	<ul style="list-style-type: none"> The resource was modelled using Geovia's Surpac v6.9 modelling software. Drill hole sample data was flagged from interpretations of the top and base of the mineralisation horizon. Internal dilution intervals were also coded. Mineralised sample length was composited to 1m down hole length. Top grade cuts were not applied Total Graphitic Carbon (TGC) estimated by Ordinary Kriging (OK) for mineralised domain.. Sulfur (S) estimated by OK for mineralised domain. Density was assigned based on the average of mineralised material by water emersion technique. Statistical analysis was completed to investigate low correlation variances, boundary conditions between domains, fresh/oxide, extrapolation distance, variogram ranges, KNA, parent block size, sub-cell, constraints used for volume model, variable search orientation, sample numbers used, discretisation, validation. TGC mineralisation continuity was interpreted from variogram analyses to have a horizontal range of 105m. S range used was 120m. The anticline was unfolded to provide the estimation ranges. The strike and dip used were assigned based on mineralised wireframes. Indicated resources have been defined in the centre of the deposit where material was estimated in the first pass estimation. Inferred material occurs in the northern and southern limits of the deposit where drilling data is sparser, but still sufficient to assume continuity of mineralisation. The maximum extrapolation distance is 40 m along strike and 40 m across strike. Grade estimation was into parent blocks of 20 mE by 20 mN by 5 mRL. Block size was selected based on kriging neighbourhood analysis. Sub blocking of 2.5mE by 5mN by 2.5mRL was used for volume calculations. Estimation was carried out using ordinary kriging at the parent block scale. The search ellipses were oriented within the plane of the mineralisation. Three estimation passes were used; the first search was based upon the variogram ranges in the three principal directions; the second search

	<i>checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available.</i>	<p>was two times the initial search and the third search was three times the initial search, with reduced sample numbers required for estimation.</p> <ul style="list-style-type: none"> Approximately 85% of the block grades were estimated in the first pass, 14% for second pass and 1% for third pass for mineralised envelope for TGC. The estimated TGC block model grades were visually validated against the input drillhole data, comparisons were carried out against the drillhole data and by northing, easting and elevation slices. There is no production data and so no reconciliation has taken place.
Moisture	<ul style="list-style-type: none"> <i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</i> 	<ul style="list-style-type: none"> The Emperor deposit sits below the water table. Moisture content has not been tested
Cut-off parameters	<ul style="list-style-type: none"> <i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i> 	<ul style="list-style-type: none"> Based on a statistical analysis of drill data, lower cut-off grade of 3.0% total graphitic carbon was used for determining mineralised material at the Emperor deposit.
Mining factors or assumptions	<ul style="list-style-type: none"> <i>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.</i> 	<ul style="list-style-type: none"> It is assumed that extraction will be by open pit mining and that the mineralisation is economic to exploit to currently modelled depths. Mining factors such as dilution and ore loss have not been applied. No assumptions about minimum mining widths or dilution have been made.
Metallurgical factors or assumptions	<ul style="list-style-type: none"> <i>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.</i> 	<ul style="list-style-type: none"> A >97% graphite concentrate was produced from a process of crushing and grinding material from the McIntosh project. See results in metallurgical test work conducted by ALS Global as part of a Prefeasibility study. Refer to announcement released 31st May 2017. Metallurgical testwork on Emperor material shows that the sulphides present are easily liberated from the graphite by flotation. The results from metallurgical testwork have been considered for Mineral Resource classification. Flake size of concentrate has been determined to saleability of product.
Environmental factors or assumptions	<ul style="list-style-type: none"> <i>Assumptions made regarding possible waste and process residue disposal options. It is</i> 	<ul style="list-style-type: none"> No assumptions have been made regarding waste and process residue Environmental studies are being completed as

	<p><i>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.</i></p>	<p>part of the McIntosh Feasibility study.</p> <ul style="list-style-type: none"> • In 2018, static leach testwork have been carried out on over 150 non graphitic rock samples from the Emperor deposit. Samples containing >1% total sulphur values in fresh rock, were shown to be Potentially Acid Forming
Bulk density	<ul style="list-style-type: none"> • <i>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.</i> • <i>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.</i> <p><i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i></p>	<ul style="list-style-type: none"> • Dry density was assigned a value of 2.83 (fresh) and 2.65 (oxide) based on 245 dried core samples and water emersion technique carried out by ALS. • Geophysical gamma density data has previously been obtained but has not been used in the resource density determination.
Classification	<ul style="list-style-type: none"> • <i>The basis for the classification of the Mineral Resources into varying confidence categories.</i> • <i>Whether appropriate account has been taken of all relevant factors (i.e. 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).</i> <p><i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i></p>	<ul style="list-style-type: none"> • Mineral Resources have been classified on the basis of confidence in geological and grade continuity using the drilling density, geological model, modelled grade continuity and conditional bias measures (slope of the regression and kriging efficiency) as criteria. • The results from metallurgical testwork have been considered for Mineral Resource classification. Metallurgical testwork data confirms data obtained from the adjacent prospect. • Measured Mineral Resources - none defined. • Indicated resources have been defined in the centre of the deposit where material was estimated in the first pass estimation. • Inferred material occurs in the northern and southern limits of the deposit where drilling data is sparser, but still sufficient to assume continuity of mineralisation. The classification considers all available data and quality of the estimate and reflects the Competent Person's view of the deposit.
Audits or reviews	<ul style="list-style-type: none"> • <i>The results of any audits or reviews of Mineral Resource estimates.</i> 	<ul style="list-style-type: none"> • This resource has not been peer reviewed. The previous resource in 2017 was peer reviewed by independent consultants Optiro • CSA carried out a site visit in 2015.
Discussion of relative accuracy/	<ul style="list-style-type: none"> • <i>Where appropriate a statement of the relative accuracy and confidence</i> 	<ul style="list-style-type: none"> • The relative accuracy of the Mineral Resource estimate is reflected in the reporting of the Mineral Resource as per the guidelines of the

confidence	<p><i>level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person.</i></p> <ul style="list-style-type: none"> • <i>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.</i> 	<p>JORC Code (2012 Edition).</p> <ul style="list-style-type: none"> • The mineral resource is a global estimate of tonnes and grade. • The confidence intervals have been based on a block informing information. • Relative tonnages and grade above the nominated cut-off grades for TGC are provided in the body of this report. Volumes of the collated blocks sub-set by mineralisation domains were multiplied by the dry density value to derive the tonnages. The contained graphite values were calculated by multiplying the TGC grades (%) by the estimated tonnage. • No production data is available to reconcile results with.
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Appendix 2: JORC Table 1 for the Wahoo Resource Estimate - February 2019

Section 1 Sampling Techniques and Data

Criteria	JORC Code Explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> Nature and quality of sampling Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. 	<p>1. Reverse Circulation</p> <ul style="list-style-type: none"> RC drilling used high pressure air and a cyclone with a rotary splitter. Samples were collected at one-metre intervals. All graphitic intervals were submitted for analyses. Duplicate and standards analysis were completed and no issues identified with sampling reliability. Samples were sent to the ALS laboratory in Perth for assay preparation and then sent to ALS in Brisbane, Vancouver and Ireland for Total Graphitic Carbon (TGC) analyses. All samples were pulverised to better than 85% passing 75µm with a 10g aliquot taken for assay. Sampling was guided by Hexagon and MRL's protocols and QA/QC procedures. RC drilling samples of 3 to 5kg weight were shipped to the laboratory in calico bags; samples were pulverised and milled for assay. <p>2. Diamond Drilling</p> <ul style="list-style-type: none"> Prior to 2018, Drill samples were collected based on geology, varying in thickness from 0.1 m to 2m intervals. Sampling was completed so samples could be composited to one metre intervals within the geological units. In 2018 PQ3 drill core samples were collected at one-metre intervals. All graphitic intervals were submitted for analyses. Core samples were quarter split by ALS using a diamond bladed saw and sent to the ALS laboratory in Perth for assay preparation and then sent to ALS in Brisbane, Vancouver and Ireland for Total Graphitic Carbon (TGC) analyses. All samples were pulverised to better than 85% passing 75µm with a 10g aliquot taken for assay. Duplicate samples, CRM standards and blank material (washed quartz sand) were used during the drill programs. Duplicates were collected after each 50 samples. Standards were inserted for samples ending in *00,*20,*40,*60 and *80 and blanks for samples ending in *01,*21,*41,*61 and *81. Sampling was guided by Hexagon and MRL's protocols and QA/QC procedures.
Drilling Techniques	<ul style="list-style-type: none"> 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 	<p>1. Reverse Circulation</p> <ul style="list-style-type: none"> Prior to 2018; 26 holes for 2,203 metres were completed In 2018; 19 RC holes have been completed for 1,443 metres. All RC drilling was completed with face sampling hammers and collected through a cyclone. Sample recovery was estimated as a percentage of the expected sample, sample state recorded

	<p><i>oriented and if so, by what method, etc).</i></p>	<p>(dry, moist or wet), samples tested with 10:1 HCl acid for carbonates and graphite surface float.</p> <ul style="list-style-type: none"> • RC drilling was completed by Egan drilling using an X400 drill rig, United Drilling Services using a DE840 drill rig and by Mt Magnet Drilling using a Hydco 1300 drill rig. <p>2. Diamond Drilling</p> <p>Pre 2018</p> <ul style="list-style-type: none"> • A total of 11 holes for 1257.8m were completed. HQ₃ core was collected using a 3m core barrel and drilled by Terra Drilling using a Hanjin Powerstar 7000 track mounted rig. Core orientation was recorded using a Reflex EZ Shot instrument. <p>2018</p> <ul style="list-style-type: none"> • One RC pre-collar was drilled in preparation for a PQ₃ diamond tail, for a total of 40.6m. • Seven diamond holes for 464.1 metres were completed • PQ₃ core was collected using a 1.5m core barrel. • Drilling was completed by Mt Magnet Drilling using a Hydco 650 drill rig. • Core was not orientated.
Drill sample recovery	<ul style="list-style-type: none"> • <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i> • <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i> • <i>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.</i> 	<p>1. RC Drilling</p> <ul style="list-style-type: none"> • A face sampling hammer was used to reduce contamination at the face. • 1m drill chip samples, weighing between 3-5kg were collected in sequentially numbered bags. • Split samples were recovered from a cyclone and rig-mounted cone splitter. The sample recovery and physical state were recorded. • Every interval drilled is represented in an industry standard chip tray that provides a check for sample continuity down hole. <p>2. Diamond drilling</p> <ul style="list-style-type: none"> • Core recoveries were measured for each run between core blocks and measurements recorded.
Logging	<ul style="list-style-type: none"> • <i>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.</i> • <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i> • <i>The total length and percentage of the relevant intersections logged.</i> 	<ul style="list-style-type: none"> • All RC and diamond drilling was logged for geology in the field by qualified geologists. Lithological and mineralogical data was recorded for all drill holes using a coding system developed specifically for the Project. Primary and secondary lithologies are recorded in addition to texture, structure, colour, grain size, alteration type and intensity, estimates of mineral quantities, graphite intensity and sample recovery. The oxidation zone is also recorded. • No adjustments have been made to any assay data. • Geological logging is qualitative in nature. • Diamond drill logging also recorded recovery, structure and geotechnical data. • Diamond core was orientated using the Reflex orientation tool. PQ core collected in 2018 was not orientated. • All core was orientated and marked up in preparation for cutting. • Core was photographed both wet and dry.

Sub-sample techniques and sample preparation	<ul style="list-style-type: none"> • <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i> • <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i> • <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i> • <i>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.</i> • <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i> 	<p>1. RC Drilling</p> <ul style="list-style-type: none"> • All samples were marked with unique sequential sample number. • RC drilling samples were bagged at the drill site in calico bags with a second outer plastic bag to prevent loss of fines. The sample sizes are considered to be appropriate to the grain size of the material being sampled. • 1m RC drill samples were submitted to ALS laboratories in Perth. The samples were riffle split on a 50:50 basis, with one split pulverised and analysed for Total Graphitic Carbon (TGC), Total Carbon (TC) and Total Sulphur (TS) using a LECO Furnace, and the other split held in storage. • For RC samples, standards and field duplicates were inserted at an approximate rate of 1 in every 20 samples collected. Duplicate assay results exhibit good correlation with the original assays and no consistent bias is evident. • Sample preparation: <ol style="list-style-type: none"> 1. Coarse crush using a jaw crushed to better than 70% passing 6mm. 2. For samples exceeding 3kg received mass, riffle split using a Jones Riffle Splitter 50:50. 3. Pulverise up to 3kg of coarse crushed material to better than 85% passing 75µm particle size 4. Small aliquot (~10g) taken for assay. <p>2. Diamond Core</p> <ul style="list-style-type: none"> • Diamond drill core was cut into half core (retained for metallurgical testing) and the remaining half sawn into quarter core using diamond blade core-saw. Quarter core was used for samples and duplicates. Core cutting prior to 2018 was carried out by Westernex in Perth. In 2018 core cutting was carried out by ALS in Perth. • Duplicate assay results exhibit good correlation with the original assays and no consistent bias is evident. • Sample preparation: <ol style="list-style-type: none"> 1. Coarse crush using a jaw crushed to better than 70% passing 6mm. 2. For samples exceeding 3kg received mass, riffle split using a Jones Riffle Splitter 50:50 3. Pulverise up to 3kg of coarse crushed material to better than 85% passing 75µm particle size 4. Small aliquot (~10g) taken for assay. • Sampling procedures and sample preparation represent industry good practice.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> • <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i> 	<ul style="list-style-type: none"> • The assaying and laboratory procedures used are appropriate for the material tested. • Sampling was guided by Hexagon and MRL's protocols and QA/QC procedures.

	<ul style="list-style-type: none"> <i>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.</i> 	<ul style="list-style-type: none"> For RC samples, standards and field duplicates were inserted at an approximate rate of 1 in every 20 samples collected. Field duplicates were taken from the coarse reject of processed diamond core samples at a rate of 4 every 100 samples, standards at a rate of 4 every 100 samples and blanks at 2 every 100 samples. Statistical analysis of standards, blanks and duplicates during the QAQC process showed that the data was satisfactory. No issues were identified with sampling reliability
Verification of sampling and assaying	<ul style="list-style-type: none"> <i>The verification of significant intersections by either independent or alternative company personnel.</i> <i>The use of twinned holes.</i> <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> <i>Discuss any adjustment to assay data.</i> 	<ul style="list-style-type: none"> Hexagon QA/QC checks show that all samples are within acceptable limits. No adjustments to assay data have been made based on the analysis of duplicates, standards and blanks. During a site visit in October 2015, a geological consultant from CSA verified that the diamond drilling, geological logging and sampling practices were of industry standard. The same practices were used for the Wahoo drilling in 2018. No external verification was completed on data collected during 2018. The Hexagon database is hosted in a SQL backend database, ensuring that data is validated as it is captured and exports are produced regularly. Assay results are merged into the database from the lab certificates limiting transcription or mapping errors from occurring. The same practices above were adopted in 2018. No adjustments have been made to the results.
Location of Data points	<ul style="list-style-type: none"> <i>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.</i> <i>Specification of the grid system used.</i> <i>Quality and adequacy of topographic control.</i> 	<ul style="list-style-type: none"> 23 drill collars were surveyed by MNG Survey using a Differential GPS. The degree of accuracy of drill hole collar location and RL is estimated to be within 0.1m for DGPS. Topography from contours generated from a Lidar survey was used to validate collar points and assign RL values to the 3 holes surveyed by GPS that had an RL >2m different to the topography. All holes used in the resource have been downhole surveyed using a north seeking gyro by ABIM Solutions. The map projection used is the Australia Geodetic MGA 94 Zone 52.
Data spacing and distribution	<ul style="list-style-type: none"> <i>Data spacing for reporting of Exploration Results.</i> <i>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.</i> 	<ul style="list-style-type: none"> Drill spacing on an approximate 40m by 20m grid across the deposit. Geological interpretation and mineralisation continuity analysis indicates that data spacing is sufficient for definition of a Mineral Resource.

	<ul style="list-style-type: none"> • <i>Whether sample compositing has been applied.</i> 	
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> • <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i> • <i>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.</i> 	<ul style="list-style-type: none"> • Holes generally drilled dipping at -60° perpendicular to the graphitic schist units. • Diamond drill core has been orientated using a Reflex ACE tool 9Act II), with α and β angles measured and positioned using a Kenometer. • PQ core collected in 2018 was not orientated. • The relationship between the drilling orientation and the orientation of key mineralised structures is not considered to have introduced a sampling bias.
Sample Security	<ul style="list-style-type: none"> • <i>The measures taken to ensure sample security.</i> 	<ul style="list-style-type: none"> • Unique sample numbers were retained during the whole process. • RC samples were placed into calico bags and then into plastic bags prior to being put into bulka bags on pallets. The bulka bags were then transported by road to ALS laboratories in Perth. Preparation was completed by ALS in Perth and then transferred through internal systems to ALS Brisbane, Vancouver and Ireland for analysis • Diamond core was sent to ALS in Perth for cutting and preparation. Then transferred through internal systems to ALS Brisbane, Vancouver and Ireland for analysis. • Drill core was transported to ALS in Perth by road train in stacked core trays, secured to pallets with metal strapping. • The sample security is considered to be adequate.
Audits or reviews	<ul style="list-style-type: none"> • <i>The results of any audits or reviews of sampling techniques and data.</i> 	<ul style="list-style-type: none"> • Sampling techniques and data collection methods have been audited by CSA during a site visit in October 2015. These same practices were adopted in 2018. • Field data is managed by an independent data management consultancy Rocksolid Solutions. • All data collected was subject to internal review • No audits or reviews were completed on work completed in 2018.

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	<ul style="list-style-type: none"> Drilling at the Wahoo deposit is located on exploration lease E80/3906. This tenement is held by McKintosh Resources Pty Ltd who is a wholly owned subsidiary of Hexagon Resources. Mineral Resources Ltd are the managers of the 2018 exploration work on the McIntosh Project.
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> The East Kimberley has been largely explored for base metals and diamonds with no active previous exploration for graphite. Graphite had been noted by Gemutz during regional mapping in the Mabel Downs area for the BMR in 1967, by Rugless mapping and RAB drilling in the vicinity of Melon Patch bore, to the east of the Great Northern Highway in 1993 and repeatedly encountered during nickel exploration by Australian Anglo American Ltd, Panoramic Resources Ltd and Thundelarra Resources Ltd over the last 20 years.
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> The McIntosh Project graphite schist horizons occur in the high grade terrain of the Halls Creek Mobile Zone of Western Australia. The host stratigraphy is the Tickalara Metamorphic which extend for approximately 130 km along the western side of the major Halls Creek Fault. The metamorphic rocks reach granulite metamorphic facies under conditions of high-temperature and high pressure although the metamorphic grade in the McIntosh Project area appears to be largely upper amphibolite facies with the presence of key minerals such as sillimanite and evidence of original cordierite. Hexagon had identified potential graphite schist horizons based on GSWA mapping and EM anomalism over a strike length in excess of 15km within the project area, with potential for an additional 35km strike length of graphite bearing material from lower order EM anomalism.
Drill hole Information	<ul style="list-style-type: none"> A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes: <ul style="list-style-type: none"> easting and northing of the drillhole collar elevation or RL (elevation 	<p>RC Drilling</p> <ul style="list-style-type: none"> Prior to 2018; 26 holes for 2,203 metres were completed In 2018 ;19 RC holes have been completed for 1,443 metres. <p>Diamond Drilling</p>

	<p><i>above sea level in metres) of the drillhole collar</i></p> <ul style="list-style-type: none"> <i>dip and azimuth of the hole</i> <i>down hole length and interception depth</i> <i>hole length.</i> 	<p>Pre 2018</p> <ul style="list-style-type: none"> A total of 11 holes for 1257.8m were completed HQ₃ core was collected using a 3m core barrel and drilled by Terra Drilling using a Hanjin Powerstar 7000 track mounted rig. Core orientation was recorded using a Reflex EZ Shot instrument. <p>2018</p> <ul style="list-style-type: none"> One RC pre-collar was drilled in preparation for a PQ₃ diamond tail, for a total of 40.6m. Seven diamond holes for 464.1 metres were completed Hole locations tabulated and reported in the body of the report.
Data aggregation methods	<ul style="list-style-type: none"> <i>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.</i> 	<ul style="list-style-type: none"> Data compiled in excel and validated in Datashed by an external data management consultancy. RC samples were all 1m in length. Prior to 2018 diamond core samples varied between 1-2m. In 2018 all samples were 1m lengths. Metal equivalents are not reported as this is an industrial mineral project where the mineral properties define grade (e.g. flake size and purity). A nominal 3% Total Graphitic Carbon cut-off has been applied in the determination of significant intercepts.
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <i>If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.</i> <i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect.</i> 	<ul style="list-style-type: none"> Mineralised widths at Wahoo are estimated to be typically between 5m and 15m, compared with RC samples of 1m width. There is a very close relationship between the graphitic schist unit and Total Graphitic Carbon (TGC%) assays. The presence of graphitic schist is clearly evident in both the RC chips and diamond drill core so that the assay widths can be clearly related to the geological logs. The modelled graphitic schist units have been interpreted as the west limb of a syncline feature striking north-east. Angled drill holes (generally 60°) have targeted the mineralised unit with the priority to intersect perpendicular to the strike of the graphitic schist horizon. Interpreted EM data and the width of intersections where holes were drilled perpendicular to the unit have allowed for a good indication of unit thickness to be made and applied in areas where the information is not available
Diagrams	<ul style="list-style-type: none"> <i>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 drillhole collar locations and appropriate sectional views.</i> 	<ul style="list-style-type: none"> Relevant diagrams have been included within the Mineral Resource report main body of text.

Balanced reporting	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Exploration results have been reported using a nominal 3% TGC cut off, over a minimum interval length of 3m. Internal dilution of no more than 2m sub 3% TGC has been incorporated.
Other substantive exploration data	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The September 2014 VTEM Supermax survey over the McIntosh Flake Graphite Project covered a total of 642 line kilometres and identified a total of 12 high-priority anomalies. Five of these were previously identified by induced polarisation (IP) and historical electromagnetic (EM) techniques and confirmed to be flake graphite schist by geological field mapping, petrographic analysis, rock chip sampling and exploration drilling. VTEM geophysical work was carried out by Geotech Limited with the data validated and processed by Southern Geoscience Consultants (SGC).
Further work	<ul style="list-style-type: none"> The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). 	<ul style="list-style-type: none"> An EM anomaly remains un-tested directly west of the Wahoo deposit. Drill testing is recommended

Section 3 Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
Database integrity	<ul style="list-style-type: none"> Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. Data validation procedures used. 	<ul style="list-style-type: none"> Primary data was captured into spreadsheet format by the supervising geologist, validated and subsequently loaded into Hexagon's database. Database extracted as an .mdb access file from Datashed and validated before importing into Surpac. Additional data validation by MRL; included checking for out of range assay data and overlapping or missing intervals.
Site Visits	<ul style="list-style-type: none"> Comment on any site visits undertaken by the Competent Person and the outcome of those visits. 	<ul style="list-style-type: none"> Competent Person sign-off for the Mineral Resource estimate is jointly shared by Chris Handley (MRL employee), who assumes responsibility for data quality, and Matthew Watson (MRL employee), who assumes responsibility for the interpretation and resource modelling. Chris Handley visited the McIntosh drilling program between August and October 2018 and observed and supervised the geological logging, sampling and associated QA/QC practices. The Competent Person also observed and supervised the drilling to ensure that representative samples were being collected. Chris Handley inspected the ALS Perth laboratory prior to the commencement of the analytical work.

		<ul style="list-style-type: none"> Matthew Watson has not conducted a site visit.
Geological interpretation	<ul style="list-style-type: none"> <i>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</i> <i>Nature of the data used and of any assumptions made.</i> <i>The effect, if any, of alternative interpretations on Mineral Resource estimation.</i> <i>The use of geology in guiding and controlling Mineral Resource estimation.</i> <p><i>The factors affecting continuity both of grade and geology.</i></p>	<ul style="list-style-type: none"> Geological interpretation based on lithology logging, structural logging, geochemical sampling, prospect scale surface mapping and modelled VTEM data collected during the 2014 VTEM Supermax survey. Drill coverage to ~40m x 20m. Mineralisation wireframes are based on lithology and a soft 1% TGC cut-off grade to delineate ore/waste boundaries. Five mineralised domains were identified and divided into zones above and below the base of oxidation. No alternative interpretations were identified. Confidence in the grade and geological continuity is reflected in the Mineral Resource classification.
Dimensions	<ul style="list-style-type: none"> <i>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.</i> 	<ul style="list-style-type: none"> The Wahoo resource consists of multiple graphite units over an area extending 350m WSW-ENE. The mineralisation follows the bedding of the hosting graphite schist units ranging in thickness between 5 and 15m.
Estimation and modelling techniques	<ul style="list-style-type: none"> <i>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.</i> <i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i> <i>The assumptions made regarding recovery of by-products.</i> <i>Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).</i> <i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i> 	<ul style="list-style-type: none"> The resource was modelled using Micromine 2018 SP4 modelling software. Drill hole samples were flagged with wire frame domain codes. Top grade cuts were not applied. Ordinary Kriging ("OK") interpolation was selected as the estimation method as it allows the measured spatial continuity to be incorporated into the estimate and is appropriate for the nature of the mineralisation. Five separate geological / mineralisation domains were used to control estimation of TGC%. These domains were further separated into zones occurring above and below the oxidation front prior to the estimation of S%. Analysis of sample lengths indicated that compositing to 1m was necessary. Directional variograms were modelled by domain using traditional variograms. Nugget values are moderate (around 20%) and structure ranges up to 120m for TGC and 200m for S. Variography was carried out on flagged samples below the oxidation front. The flagged samples were unfolded relative their domains prior to carrying out variography. Domains with limited samples used the variography from Domain 4. Search ellipse sizes for the estimation were based primarily on a combination of the variography and the trends of the wire framed mineralised zones. Hard boundaries were applied between all estimation domains. The primary search ellipse radius for all mineralised domains was set at 80% of the total semivariogram sill: 22m(TGC%) and 80m(S%) along strike, 12m(TGC%) and 30m(S%) across

	<ul style="list-style-type: none"> • <i>Any assumptions behind modelling of selective mining units.</i> • <i>Any assumptions about correlation between variables.</i> • <i>Description of how the geological interpretation was used to control the resource estimates.</i> • <i>Discussion of basis for using or not using grade cutting or capping.</i> • <i>The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available.</i> 	<p>strike and 4.5m(TGC%) and 2.4m(S%) vertically using “unfolded” coordinates. A minimum of 8 samples and a maximum of 20 samples were required in the search pass; a minimum of two drill holes was required. A maximum of 4 samples per drill hole was used. Where blocks were not informed in the first pass, a second search ellipse was used with a radius set at 95% of the total semivariogram sill: 57m(TGC%) and 140m(S%) along strike, 52m(TGC%) and 53m(S%) across strike and 5.7m vertically using “unfolded” coordinates. A minimum of 4 samples and a maximum of 20 samples were required in the search pass; a minimum of one drill hole was required. A maximum of 4 samples per drill hole was used. Where blocks were not informed in the second pass a third search ellipse was used with a radius set at 100% of the total semivariogram sill: 120m(TGC%) and 200m(S%) along strike, 110m(TGC%) and 74.4m(S%) across strike and 12m(TGC%) and 6m(S%) vertically using “unfolded” coordinates. A minimum of 2 samples and a maximum of 20 samples were required in the search pass; a minimum of one drill hole was required. A maximum of 4 samples per drill hole was used.</p> <ul style="list-style-type: none"> • TGC and S percent were estimated by OK. • Block size was 10m (E-W) by 20m (N-S) by 2.5m (Vertical) with sub-cells to 1m x 2m x 0.5m. • Flake size values and distribution within the domains were not available for the estimation and as such have not been assigned to the block model. • Density was assigned based on the average of downhole geophysical data using a Geovista Dual density logging tool. • Previous Indicated and Inferred Mineral Resource estimates were published by Hexagon in May 2017. • Validation of the final resource has been carried out in a number of ways, including: <ul style="list-style-type: none"> ○ Drill Hole Section Comparison; ○ Comparison by Mineralisation Zone; ○ Swathe Plot Validation; ○ Model versus Composites by Domain. • All modes of validation have produced acceptable results. • There is no production data and so no reconciliation has taken place. • Sulphur was estimated into the model, as sulphide minerals have the potential to affect metallurgical processes for recovering graphite. The available metallurgical testwork results indicate that the sulphide minerals do not present any issues in recovering graphite.
Moisture	<ul style="list-style-type: none"> • <i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the</i> 	<ul style="list-style-type: none"> • Tonnes have been estimated on a dry basis.

	<i>method of determination of the moisture content.</i>	
Cut-off parameters	<ul style="list-style-type: none"> • <i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i> 	<ul style="list-style-type: none"> • The mineralised domain interpretations were based upon a combination of geology and a lower cut-off of 1% TGC.
Mining factors or assumptions	<ul style="list-style-type: none"> • <i>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.</i> 	<ul style="list-style-type: none"> • Mining factors such as dilution and ore loss have not been applied. • Based on the orientations, thicknesses and depths to which the TGC mineralised domains have been modelled, plus their estimated grades for TGC and S, the expected mining method is open pit mining.
Metallurgical factors or assumptions	<ul style="list-style-type: none"> • <i>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.</i> 	<ul style="list-style-type: none"> • A 99% graphite concentrate was produced from a process of crushing and grinding material from the McIntosh project. See results in metallurgical test work conducted by ALS Global in Adelaide. Refer to announcement released 18 January 2016. • Metallurgical testwork on material from the McIntosh Project shows that the sulphides present are easily liberated from the graphite by flotation. • The results from metallurgical testwork have been considered for Mineral Resource classification.
Environmental factors or assumptions	<ul style="list-style-type: none"> • <i>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.</i> 	<ul style="list-style-type: none"> • In 2018, static leach testwork have been carried out on over 150 non-graphitic rock samples from the Emperor deposit. Samples containing >1% total sulphur values in fresh rock, were shown to be Potentially Acid Forming. The geological setting of Wahoo is seen as analogous to Emperor. Testing of Wahoo non-graphitic rock types is has yet to be completed.
Bulk density	<ul style="list-style-type: none"> • <i>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.</i> • <i>The bulk density for bulk material must have been measured by methods that</i> 	<ul style="list-style-type: none"> • Dry density was assigned a value of 2.85 (fresh) and 2.65 (oxide) based on 53 dried core samples and water emersion technique carried out by ALS.

	<p><i>adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</i></p> <p><i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i></p>	
Classification	<ul style="list-style-type: none"> • <i>The basis for the classification of the Mineral Resources into varying confidence categories.</i> • <i>Whether appropriate account has been taken of all relevant factors (i.e. 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).</i> <p><i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i></p>	<ul style="list-style-type: none"> • The Wahoo Mineral Resource has been classified in the Indicated category, in accordance with the 2012 Australasian Code for Reporting of Mineral Resources and Ore Reserves (JORC Code). • A range of criteria has been considered in determining this classification including: <ul style="list-style-type: none"> ○ Geological continuity; ○ Data quality; ○ Drill hole spacing; ○ Modelling technique; ○ Estimation properties including search strategy, kriging variance, number of informing data and average distance of data from blocks. ○ Metallurgical confidence in flake size distribution. • The Competent Person endorses the final results and classification.
Audits or reviews	<ul style="list-style-type: none"> • <i>The results of any audits or reviews of Mineral Resource estimates.</i> 	<ul style="list-style-type: none"> • No audits have been completed on the 2019 resource estimate. • Visual and statistical validation of the model indicates that the model contains no fatal flaws.
Discussion of relative accuracy/ confidence	<ul style="list-style-type: none"> • <i>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.</i> • <i>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.</i> 	<ul style="list-style-type: none"> • The relative accuracy of the Mineral Resource estimate is reflected in the reporting of the Mineral Resource as per the guidelines of the JORC Code (2012 Edition). • The resource estimate is considered to reflect local estimation of grade. • The confidence intervals have been based on a block informing information. • Relative tonnages and grade above the nominated cut-off grades for TGC are provided in the body of this report. Volumes of the collated blocks sub-set by mineralisation domains were multiplied by the dry density value to derive the tonnages. The contained graphite values were calculated by multiplying the TGC grades (%) by the estimated tonnage. • No production data is available to reconcile results with.

Appendix 3: JORC Table 1 Longtom Resource Estimate

Section 1 Sampling Techniques and Data

Criteria	JORC Code Explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> Nature and quality of sampling Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. 	<p>1. Reverse Circulation</p> <ul style="list-style-type: none"> RC drilling used high pressure air and a cyclone with a rotary splitter. Samples were collected at one-metre intervals. All graphitic intervals were submitted for analyses. Duplicate and standards analysis were completed and no issues identified with sampling reliability. Samples were sent to the ALS laboratory in Perth for assay preparation and then sent to ALS in Brisbane for Total Graphitic Carbon (TGC) analyses. All samples were pulverised to better than 85% passing 75µm with a 10g aliquot taken for assay. Sampling was guided by Hexagon's protocols and QA/QC procedures. RC drilling samples of 3 to 5kg weight were shipped to the laboratory in plastic bags; samples were pulverised and milled for assay. <p>2. Diamond Drilling</p> <ul style="list-style-type: none"> Drill samples in this program were collected based on geology, varying in thickness from 0.1 m to 2 m intervals. Sampling was completed so samples could be composited to one metre intervals within the geological units. Core samples were quarter split HQ3 core using a diamond bladed saw and sent to the ALS laboratory in Perth for assay preparation and then sent to ALS in Brisbane for Total Graphitic Carbon (TGC) and Sulfur (S) analyses. All samples were pulverised to better than 85% passing 75µm with a 10g aliquot taken for assay. Duplicate samples, CRM standards and blank material were used during the drill programs. Sampling was guided by Hexagon's protocols and QA/QC procedures.
Drilling Techniques	<ul style="list-style-type: none"> 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). 	<p>1. Reverse Circulation</p> <ul style="list-style-type: none"> RC drill holes (total of 5,564m from 58 holes) – completed with face sampling hammers and collected through a cyclone. Sample recovery was estimated at a percentage of the expected sample, sample state recorded (dry, moist or wet), samples tested with 10:1 HCl acid for carbonates and graphite surface float. RC drilling was completed by Egan drilling using an X400 drill rig for the years prior to 2017 and by Seismic drilling using an LMP2000 drill rig in 2017. <p>2. Diamond Drilling</p> <ul style="list-style-type: none"> Diamond drill holes (total of 156.1m from 3 holes) – collected HQ₃ core using a 6m core barrel and drilled by Mt Magnet Drilling using a truck mounted modified Mole top drive diamond rig. Core orientation was recorded using a Reflex EZ Shot instrument. RC pre-collars were drilled with HQ₃ diamond tails for a total of 1,077.3m from 8 holes.
Drill sample recovery	<ul style="list-style-type: none"> Method of recording and assessing core and chip 	<p>1. RC Drilling</p> <ul style="list-style-type: none"> A face sampling hammer was used to reduce

	<p>sample recoveries and results assessed.</p> <ul style="list-style-type: none"> Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. 	<p>contamination at the face.</p> <ul style="list-style-type: none"> 1m drill chip samples, weighing approximately 2kg were collected throughout the drill programme in sequentially numbered bags. Split samples were recovered from a cyclone and rig-mounted cone splitter. The sample recovery and physical state were recorded. Every interval drilled is represented in an industry standard chip tray that provides a check for sample continuity down hole. <p>2. Diamond drilling</p> <ul style="list-style-type: none"> Core recovery was excellent. Recoveries were measured for each run between core blocks and measurements recorded. Core was photographed and logged for RQD and geology. Analysis from one twin holes drilled at the resource noted a lower graphite content in the RC samples when compared with diamond core. Insufficient work has been completed on comparing RC and diamond methods to rule out drilling by RC.
Logging	<ul style="list-style-type: none"> Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. 	<ul style="list-style-type: none"> All RC and diamond drilling was logged for geology in the field by qualified geologists. Lithological and mineralogical data was recorded for all drill holes using a coding system developed specifically for the Project. Primary and secondary lithologies are recorded in addition to texture, structure, colour, grain size, alteration type and intensity, estimates of mineral quantities, graphite intensity and sample recovery. The oxidation zone is also recorded. No adjustments have been made to any assay data Geological logging is qualitative in nature. Diamond drilling logging also recorded recovery, structure and geotechnical data. Diamond core was orientated using the Reflex orientation tool. Core was photographed both dry and wet.
Sub-sample techniques and sample preparation	<ul style="list-style-type: none"> If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being 	<p>1. RC Drilling</p> <ul style="list-style-type: none"> All samples marked with unique sequential sample number RC drilling samples were bagged at the drill site in calico bags with a second outer plastic bag to prevent loss of fines. The sample sizes are considered to be appropriate to the grain size of the material being sampled. 1m RC drilling samples were submitted to either ALS laboratories in Brisbane. The samples were riffle split on a 50:50 basis, with one split pulverised and analysed for Total Graphitic Carbon (TGC), Total Carbon (TC) and Total Sulphur (TS) using a LECO Furnace, and the other split held in storage. For RC samples, standards and field duplicates were inserted at an approximate rate of 1 in every 20 samples collected. Duplicate assay results exhibit good correlation with the original assays and no consistent bias is evident. Sample preparation: <ol style="list-style-type: none"> Coarse crush using a jaw crushed to better than 70% passing 6mm. For samples exceeding 3kg received mass, riffle

	<i>sampled.</i>	<p>split using a Jones Riffle Splitter 50:50</p> <ol style="list-style-type: none"> 3. Pulverise up to 3kg of coarse crushed material to better than 85% passing 75µm particle size 4. Small aliquot (~10g) taken for assay. <p>2. Diamond Drilling</p> <ul style="list-style-type: none"> • Diamond drill core was cut into half core (used for metallurgical testing) and the remaining half sawn into quarter core using diamond blade core-saw. Quarter core was used for samples and duplicates. Samples were sent to Actlabs in Canada and ALS in Brisbane for analysis. • Duplicate assay results exhibit good correlation with the original assays and no consistent bias is evident. • Sample preparation: <ol style="list-style-type: none"> 1. Coarse crush using a jaw crushed to better than 70% passing 6mm. 2. For samples exceeding 3kg received mass, riffle split using a Jones Riffle Splitter 50:50 3. Pulverise up to 3kg of coarse crushed material to better than 85% passing 75µm particle size 4. Small aliquot (~10g) taken for assay. • Sampling procedures and sample preparation represent industry good practice:
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> • <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i> • <i>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.</i> 	<ul style="list-style-type: none"> • The assaying and laboratory procedures used are industry standard and are appropriate for the material tested. • Sampling was guided by Hexagon's protocols and QA/QC procedures. • For RC samples, standards and field duplicates were inserted at an approximate rate of 1 in every 20 samples collected. • Field duplicates were inserted into diamond core samples at a rate of 5 every 100 samples, standards at a rate of 5 every 100 samples and blanks at 2 every 100 samples. • Statistical analysis of standards, blanks and duplicates during the QAQC process showed that the data was satisfactory. • No issues were identified with sampling reliability
Verification of sampling and assaying	<ul style="list-style-type: none"> • <i>The verification of significant intersections by either independent or alternative company personnel.</i> • <i>The use of twinned holes.</i> • <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> • <i>Discuss any adjustment to assay data.</i> 	<ul style="list-style-type: none"> • Hexagon QA/QC checks show that all samples are within acceptable limits. No adjustments to assay data have been made based on the analysis of duplicates, standards and blanks. • Standards from ALS laboratory were found to be acceptable. • CSA verified several graphite intersections in core and RC chip samples during a visit to Hexagon's Joondalup warehouse during January 2015. • Duplicate analysis was completed and no sampling issues were identified. • Analysis from twin holes drilled at Hexagon's Longtom resource noted a lower graphite content in the RC samples when compared with diamond core. It is suggested that RC samples are biased due to the loss of fine material. • The Hexagon database is hosted in a SQL backend database, ensuring that data is validated as it is captured and exports are produced regularly. Assay

		<p>results are merged into the database from the lab certificates limiting transcription or mapping errors from occurring.</p> <ul style="list-style-type: none"> • No adjustments have been made to the results.
Location of Data points	<ul style="list-style-type: none"> • 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. • Specification of the grid system used. • Quality and adequacy of topographic control. 	<ul style="list-style-type: none"> • All drill hole collars were surveyed using Differential GPS by a registered surveyor. The degree of accuracy of drill hole collar location and RL is estimated to be within 0.1m for DGPS. • All holes where possible have been downhole surveyed using a north seeking gyro by ABIM Solutions. Downhole surveys were taken at the end of drilling the hole using EZshot and EZTrac cameras. • The majority of holes used in the resource have been downhole surveyed using a north seeking gyro by ABIM Solutions. • Topography from contours generated from a Lidar survey was used to validate collar points. • The map projection used is the Australia Geodetic MGA 94 Zone 52.
Data spacing and distribution	<ul style="list-style-type: none"> • Data spacing for reporting of Exploration Results. • Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. • Whether sample compositing has been applied. 	<ul style="list-style-type: none"> • Drill spacing on an approximate 25m by 50m grid throughout the majority of the deposit. • Geological interpretation and mineralisation continuity analysis indicates that data spacing is sufficient for definition of a Mineral Resource.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> • Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. • If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material. 	<ul style="list-style-type: none"> • Holes generally drilled dipping at -60° perpendicular to the target graphitic schist unit at an orientation of 140°. • Diamond drill core has been orientated using a Reflex ACE tool 9Act II), with α and β angles measured and positioned using a Kenometer. MapInfo software was used to calculate dip and dip direction for each structure. • The relationship between the drilling orientation and the orientation of key mineralised structures is not considered to have introduced a sampling bias.
Sample Security	<ul style="list-style-type: none"> • The measures taken to ensure sample security. 	<ul style="list-style-type: none"> • Unique sample number was retained during the whole process • RC and diamond samples were placed into calico bags and then into self-sealing plastic bags prior to being put into bulka bags. The bulka bags were then transported by road. RC samples were sent to the ALS laboratory in Brisbane for preparation and analysis and diamond core samples were sent to Actlabs in Canada for analysis. • The sample security is considered to be adequate.
Audits or reviews	<ul style="list-style-type: none"> • The results of any audits or reviews of sampling 	<ul style="list-style-type: none"> • Field data is managed by an independent data management consultancy Rocksolid Solutions.

	<i>techniques and data.</i>	<ul style="list-style-type: none"> • All data collected was subject to internal review • No external audit was completed on the resource.
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Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> • <i>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.</i> <p><i>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.</i></p>	<ul style="list-style-type: none"> • Drilling at the Longtom deposit occurred on exploration lease E80/3928, and E80/4732. These tenements are held by McIntosh Resources Pty Ltd who is a wholly owned subsidiary of Hexagon Resources. • Hexagon Resources entered into a joint venture arrangement with Mineral Resources Ltd (MRL) who are the managers of exploration on the project.
Exploration done by other parties	<ul style="list-style-type: none"> • <i>Acknowledgment and appraisal of exploration by other parties.</i> 	<ul style="list-style-type: none"> • The East Kimberley has been largely explored for base metals and diamonds with no active previous exploration for graphite. Graphite had been noted by Gemutz during regional mapping in the Mabel Downs area for the BMR in 1967, by Rugless mapping and RAB drilling in the vicinity of Melon Patch bore, to the east of the Great Northern Highway in 1993 and has been located during nickel exploration by Australian Anglo American Ltd, Panoramic Resources Ltd and Thundelarra Resources Ltd over the last 20 years.
Geology	<ul style="list-style-type: none"> • <i>Deposit type, geological setting and style of mineralisation.</i> 	<ul style="list-style-type: none"> • The McIntosh Project graphite schist horizons occur in the high grade terrain of the Halls Creek Mobile Zone of Western Australia. The host stratigraphy is the Tickalara Metamorphic which extend for approximately 130 km along the western side of the major Halls Creek Fault. The metamorphic rocks reach granulite metamorphic facies under conditions of high-temperature and high pressure although the metamorphic grade in the McIntosh Project area appears to be largely upper amphibolite facies with the presence of key minerals such as sillimanite and evidence of original cordierite. • Hexagon has identified potential graphite schist horizons based on GSWA mapping and EM anomalism over a strike length in excess of 15km within the project area, with potential for an additional 35km strike length of graphite bearing material from lower order EM anomalism.
Drill hole Information	<ul style="list-style-type: none"> • <i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes:</i> <ul style="list-style-type: none"> • <i>easting and northing of the drillhole collar</i> • <i>elevation or RL (elevation</i> 	<ul style="list-style-type: none"> • 3 diamond drill hole for 156.1m, 58 RC drill holes for 5,564m and 8 RC precollar diamond tail (RD) holes for 1,077.3m completed at the Longtom deposit. Hole locations tabulated and reported in the body of the report.

	<p><i>above sea level in metres) of the drillhole collar</i></p> <ul style="list-style-type: none"> <i>dip and azimuth of the hole</i> <i>down hole length and interception depth</i> <i>hole length.</i> 	
Data aggregation methods	<ul style="list-style-type: none"> <i>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.</i> 	<ul style="list-style-type: none"> Data compiled in excel and validated in Datashed by an external data management consultancy. RC samples were all 1m in length, diamond core samples vary between 1m and 2m samples. Metal equivalents are not reported as this is an industrial mineral project where the mineral properties define grade (e.g. flake size and purity). A nominal 3% Total Graphitic Carbon cut-off has been applied in the determination of significant intercepts
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <i>If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.</i> <i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect.</i> 	<ul style="list-style-type: none"> Mineralised widths at Longtom are estimated to be typically 10m to 25m, compared with RC samples of 1m width. There is a very close relationship between the graphitic schist unit and Total Graphitic Carbon (TGC%) assays. The presence of graphitic schist is clearly evident in both the RC chips and diamond drill core so that the assay widths can be clearly related to the geological logs. The graphitic schist horizon has been interpreted as a steeply dipping unity with thin bands of internal waste. Angled drill holes (generally 60°) have targeted the mineralised unit with the priority to intersect the graphitic schist unit. The interpreted EM data has also allowed for a good indication of unit thickness to be made and applied in areas where the information is not available.
Diagrams	<ul style="list-style-type: none"> <i>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 drillhole collar locations and appropriate sectional views.</i> 	<ul style="list-style-type: none"> Not relevant as reporting a Mineral Resource.
Balanced reporting	<ul style="list-style-type: none"> <i>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.</i> 	<ul style="list-style-type: none"> Exploration results are not being reported for the Mineral Resources area.
Other substantive exploration data	<ul style="list-style-type: none"> <i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results;</i> 	<ul style="list-style-type: none"> The September 2014 VTEM Supermax survey over the McIntosh Flake Graphite Project covered a total of 642 line kilometres and identified a total of 12 high-priority anomalies. Five of these were previously identified by induced polarisation (IP) and historical electromagnetic (EM) techniques and confirmed to be flake graphite schist by geological field mapping,

	<i>bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i>	<p>petrographic analysis, rock chip sampling and exploration drilling.</p> <ul style="list-style-type: none"> • VTEM geophysical work was carried out by Geotech Limited with the data validated and processed by Southern Geoscience Consultants (SGC).
Further work	<ul style="list-style-type: none"> • <i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i> 	<ul style="list-style-type: none"> • Further RC drilling to improve domaining and increase the definition of the internal dilution is required. The increase in drilling data would also allow for an increase in confidence in the resource model and subsequently a resource upgrade. • Additional dry density work on core to be carried out on mineralised and background domains. • Program to assess moisture content of Longtom material. • Further petrographic work is required to assess in situ flake size. • Metallurgical testwork.

Section 3 Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
Database integrity	<ul style="list-style-type: none"> • <i>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</i> <p><i>Data validation procedures used.</i></p>	<ul style="list-style-type: none"> • Primary data was captured into spreadsheet format by the supervising geologist, validated and subsequently loaded into Hexagon's database. • Database extracted as an .mdb access file from Datashed and validated before importing into Surpac.
Site Visits	<ul style="list-style-type: none"> • <i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i> 	<ul style="list-style-type: none"> • Drilling data collected for the Longtom resource was completed by previous Lamboo / Hexagon employees prior to the 2017 program where the S.Tomlinson (CP) visited the site on numerous occasions. • The drill hole locations were in positions as per the database. • The diamond and RC drill rigs were inspecting, sampling procedures checked, RC chips and diamond core logged.
Geological interpretation	<ul style="list-style-type: none"> • <i>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</i> • <i>Nature of the data used and of any assumptions made.</i> • <i>The effect, if any, of alternative interpretations on Mineral Resource estimation.</i> • <i>The use of geology in guiding and controlling Mineral Resource estimation.</i> <p><i>The factors affecting continuity both of grade and geology.</i></p>	<ul style="list-style-type: none"> • Geological interpretation based on lithology logging, structural logging, geochemical sampling, prospect scale surface mapping and modelled VTEM data collected during the 2014 VTEM Supermax survey. • Drill coverage to ~40m x 80m. • Mineralisation wireframe produced based on soft 3% TGC cut-off grade delineating ore/waste boundary. Internal dilution in the main mineralised envelope has been modelled. • The base of oxidation is also modelled as part of the Longtom resource. • Confidence in the grade and geological continuity is reflected in the Mineral Resource classification.
Dimensions	<ul style="list-style-type: none"> • <i>The extent and variability of the Mineral Resource expressed as length (along</i> 	<ul style="list-style-type: none"> • The Longtom resource occurs as two areas with the main body in the northeast extending approximately 830m north-east to south-west and a smaller body in

	<p><i>strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</i></p>	<p>the southwest extending approximately 300m. The mineralisation follows steeply dipping unit of the hosting graphite schist unit and has a width of approximately 10 to 25m.</p>
Estimation and modelling techniques	<ul style="list-style-type: none"> • <i>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.</i> • <i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i> • <i>The assumptions made regarding recovery of by-products.</i> • <i>Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).</i> • <i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i> • <i>Any assumptions behind modelling of selective mining units.</i> • <i>Any assumptions about correlation between variables.</i> • <i>Description of how the geological interpretation was used to control the resource estimates.</i> • <i>Discussion of basis for using or not using grade cutting or capping.</i> • <i>The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if</i> 	<ul style="list-style-type: none"> • The resource was modelled using Geovia's Surpac v6.9 modelling software. • Drill hole sample data was flagged from interpretations of the top and base of the mineralisation horizon. • Samples were composited to 1m down hole length. • Top grade cuts were not required (low coefficient of variation and no outlier grades) • Statistical analysis was completed to investigate low correlation variances, boundary conditions between domains, and fresh/oxide. • TGC mineralisation continuity was interpreted from variogram analyses to have a horizontal range of 140m (north-east to south-west). • The maximum extrapolation distance is 140 m along strike and 108 m down dip. The interpreted EM plates show that mineralisation extends in these areas. • Grade estimation was into parent blocks of 40 mE by 10 mN by 5 mRL. Block size was selected based on kriging neighbourhood analysis. Sub blocking of 2.5mE by 5mN by 1.25mRL occurs. • Estimation of TGC and S was carried out using ordinary kriging at the parent block scale. • The search ellipses were oriented within the plane of the mineralisation. • Two estimation passes were used; the first search was based upon the variogram ranges in the three principal directions; the second search was two times the initial search. • Approximately 97% of the TGC block grades were estimated in the first pass. • The estimated TGC block model grades were visually validated against the input drillhole data, comparisons were carried out against the drillhole data and by northing, easting and elevation slices. • There is no production data and so no reconciliation has taken place.

	<i>available.</i>	
Moisture	<ul style="list-style-type: none"> Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content. 	<ul style="list-style-type: none"> The Longtom deposit is above the water table. Down hole dipping during the 2015 field season did not intercept water. Moisture content has not been tested
Cut-off parameters	<ul style="list-style-type: none"> The basis of the adopted cut-off grade(s) or quality parameters applied. 	<ul style="list-style-type: none"> The Mineral Resource is reported above a 3% TGC cut-off grade to reflect current commodity prices and open pit mining methods.
Mining factors or assumptions	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> It is assumed that extraction will be by open pit mining and that the mineralisation is economic to exploit to currently modelled depths. Mining factors such as dilution and ore loss have not been applied. No assumptions about minimum mining widths or dilution have been made.
Metallurgical factors or assumptions	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> A >97% graphite concentrate was produced from a process of crushing and grinding material from the McIntosh project. See results in metallurgical test work conducted by ALS Global as part of a Prefeasibility study. Refer to announcement released 31st May 2017. Metallurgical test work on material from the nearby (and geologically similar) deposit Emperor shows that the sulphides present are easily liberated from the graphite by flotation. The results from metallurgical test work have been considered for Mineral Resource classification.
Environmental factors assumptions	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> No assumptions have been made regarding waste and process residue Environmental studies are being completed as part of the McIntosh Pre-Feasibility study.
Bulk density	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Dry density was assigned a value of 2.70 t/m³ (fresh) and 2.40 t/m³ (oxide) based on core samples sent to Actlabs and UltraTrace Laboratories for SG test work. Both laboratories used the standard weight in water/weight in air method to estimate the SG.

	<p><i>of the samples.</i></p> <ul style="list-style-type: none"> <i>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.</i> <p><i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i></p>	
Classification	<ul style="list-style-type: none"> <i>The basis for the classification of the Mineral Resources into varying confidence categories.</i> <i>Whether appropriate account has been taken of all relevant factors (i.e. 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).</i> <p><i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i></p>	<ul style="list-style-type: none"> Mineral Resources have been classified on the basis of confidence in geological and grade continuity using the drilling density, geological model, modelled grade continuity and conditional bias measures (slope of the regression and kriging efficiency) as criteria. The results from metallurgical testwork have been considered for Mineral Resource classification. The likelihood of eventual economic extraction was considered in terms of possible open pit mining, likely product specifications and possible product marketability. Measured Mineral Resources - none defined. Indicated resources have been defined in the upper portion of the deposit where there is sufficient drill spacing of approximately 25m by 50m spacing) to assume continuity of mineralisation between sections. The simple nature of the structure and mineralisation morphology has resulted in a high geological understanding of the deposit with high confidence in the resource which is reflected with the classification. Inferred material occurs in the lower section of the deposit where drill spacing is approximately 200m along strike, but still sufficient to assume continuity of mineralisation. Confidence for the resource in these areas is also from the VTEM survey completed over the area. The classification considers all available data and quality of the estimate and reflects the Competent Person's view of the deposit.
Audits or reviews	<ul style="list-style-type: none"> <i>The results of any audits or reviews of Mineral Resource estimates.</i> 	<ul style="list-style-type: none"> The resource estimate has not been reviewed by external consultants.
Discussion of relative accuracy/ confidence	<ul style="list-style-type: none"> <i>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.</i> <i>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages,</i> 	<ul style="list-style-type: none"> The relative accuracy of the Mineral Resource estimate is reflected in the reporting of the Mineral Resource as per the guidelines of the JORC Code (2012 Edition). The mineral resource is a global estimate of tonnes and grade. Relative tonnages and grade above the nominated cut-off grades for TGC are provided in the body of this report. Volumes of the collated blocks sub-set by mineralisation domains were multiplied by the dry density value to derive the tonnages. The contained graphite values were calculated by multiplying the

	<i>which should be relevant to technical and economic evaluation.</i>	TGC grades (%) by the estimated tonnage. • No production data is available to reconcile results with.
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Appendix 4: JORC Table 1 Barracuda Resource Estimate

Section 1 Sampling Techniques and Data

Criteria	JORC Code Explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> Nature and quality of sampling Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. 	<p>1. Reverse Circulation</p> <ul style="list-style-type: none"> RC drilling used high pressure air and a cyclone with a rotary splitter. Samples were collected at one-metre intervals. All graphitic intervals were submitted for analyses. Duplicate and standards analysis were completed and no issues identified with sampling reliability. Samples were sent to the ALS laboratory in Perth for assay preparation and then sent to ALS in Brisbane for Total Graphitic Carbon (TGC) and Sulfur (S) analyses. All samples were pulverised to better than 85% passing 75µm with a 10g aliquot taken for assay. Sampling was guided by Hexagon's protocols and QA/QC procedures. RC drilling samples of 3 to 5kg weight were shipped to the laboratory in plastic bags; samples were pulverised and milled for assay. <p>2. Diamond Drilling</p> <ul style="list-style-type: none"> Drill samples in this program were collected based on geology, varying in thickness from 0.1 m to 2 m intervals. Sampling was completed so samples could be composited to one metre intervals within the geological units. Core samples were quarter split HQ3 core using a diamond bladed saw and sent to the ALS laboratory in Perth for assay preparation and then sent to ALS in Brisbane for TGC and S analyses. All samples were pulverised to better than 85% passing 75µm with a 10g aliquot taken for assay. Duplicate samples, CRM standards and blank material (brickies sand) were used during the drill programs. Duplicates collected after each 50 samples. Standards were inserted for samples ending in *00, *20, *40,*60 and *80 and blanks for samples ending in *01,*21,*41,*61 and *81.Sampling was guided by Hexagon's protocols and QA/QC procedures.
Drilling Techniques	<ul style="list-style-type: none"> 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). 	<p>1. Reverse Circulation</p> <ul style="list-style-type: none"> RC drill holes (total of 3,111m from 38 holes) – completed with face sampling hammers and collected through a cyclone. Sample recovery was estimated at a percentage of the expected sample, sample state recorded (dry, moist or wet), samples tested with 10:1 HCl acid for carbonates and graphite surface float. RC drilling was completed by Egan drilling using an X400 drill rig prior to 2017 and by Seismic drilling using an LMP2000 drill rig in 2017. <p>2. Diamond Drilling</p> <ul style="list-style-type: none"> Diamond drill holes (total of 396.4m for 5 holes) – collected HQ₃ core using a 3m core barrel and drilled by Terra Drilling using a Hanjin Powerstar 7000 track mounted rig prior to 2017 and by Seismic drilling using an LMP2000 drill rig in 2017. Core orientation was recorded using a Reflex EZ Shot instrument.

Drill sample recovery	<ul style="list-style-type: none"> • <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i> • <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i> • <i>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.</i> 	<p>1. RC Drilling</p> <ul style="list-style-type: none"> • A face sampling hammer was used to reduce contamination at the face. • 1m drill chip samples, weighing approximately 2kg were collected throughout the drill programme in sequentially numbered bags. • Split samples were recovered from a cyclone and rig-mounted cone splitter. The sample recovery and physical state were recorded. • Every interval drilled is represented in an industry standard chip tray that provides a check for sample continuity down hole. <p>2. Diamond drilling</p> <ul style="list-style-type: none"> • Core recovery was excellent. Recoveries were measured for each run between core blocks and measurements recorded. Core was photographed and logged for RQD and geology. • Analysis from one pair of twin holes drilled at Hexagon's Longtom resource (an adjacent and similar style graphite deposit) noted a lower graphite content in the RC samples when compared with diamond core. Insufficient work has been completed on comparing RC and diamond methods to rule out drilling by RC.
Logging	<ul style="list-style-type: none"> • <i>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.</i> • <i>Whether logging is qualitative or quantitative in nature. Core (or core, channel, etc) photography.</i> • <i>The total length and percentage of the relevant intersections logged.</i> 	<ul style="list-style-type: none"> • All RC and diamond drilling was logged for geology in the field by qualified geologists. Lithological and mineralogical data was recorded for all drill holes using a coding system developed specifically for the Project. Primary and secondary lithologies are recorded in addition to texture, structure, colour, grain size, alteration type and intensity, estimates of mineral quantities, graphite intensity and sample recovery. The oxidation zone is also recorded. • No adjustments have been made to any assay data • Geological logging is qualitative in nature. • Diamond drilling logging also recorded recovery, structure and geotechnical data. • Diamond core was orientated using the Reflex orientation tool. • Core was photographed both dry and wet.
Sub-sample techniques and sample preparation	<ul style="list-style-type: none"> • <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i> • <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i> • <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i> • <i>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.</i> 	<p>1. RC Drilling</p> <ul style="list-style-type: none"> • All samples marked with unique sequential sample number • RC drilling samples were bagged at the drill site in calico bags with a second outer plastic bag to prevent loss of fines. The sample sizes are considered to be appropriate to the grain size of the material being sampled. • 1m RC drilling samples were submitted to either Actlabs or ALS laboratories in Perth. The samples were riffle split on a 50:50 basis, with one split pulverised and analysed for Total Graphitic Carbon (TGC), Total Carbon (TC) and Total Sulphur (TS) using a LECO Furnace, and the other split held in storage. • For RC samples, standards and field duplicates were inserted at an approximate rate of 1 in every 20 samples collected. Duplicate assay results exhibit good correlation with the original assays and no consistent bias is evident.

	<ul style="list-style-type: none"> Whether sample sizes are appropriate to the grain size of the material being sampled. 	<ul style="list-style-type: none"> Sample preparation: <ol style="list-style-type: none"> Coarse crush using a jaw crushed to better than 70% passing 6mm. For samples exceeding 3kg received mass, riffle split using a Jones Riffle Splitter 50:50 Pulverise up to 3kg of coarse crushed material to better than 85% passing 75µm particle size Small aliquot (~10g) taken for assay. 2. Diamond Drilling <ul style="list-style-type: none"> Diamond drill core was cut into half core (used for metallurgical testing) and the remaining half sawn into quarter core using diamond blade core-saw. Quarter core was used for samples and duplicates. Core cutting was carried out under consignment at Westernex in Perth. Duplicate assay results exhibit good correlation with the original assays and no consistent bias is evident. Sample preparation: <ol style="list-style-type: none"> Coarse crush using a jaw crushed to better than 70% passing 6mm. For samples exceeding 3kg received mass, riffle split using a Jones Riffle Splitter 50:50 Pulverise up to 3kg of coarse crushed material to better than 85% passing 75µm particle size Small aliquot (~10g) taken for assay. Sampling procedures and sample preparation represent industry good practice:
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. 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. 	<ul style="list-style-type: none"> The assaying and laboratory procedures used are appropriate for the material tested. Sampling was guided by Hexagon's protocols and QA/QC procedures. For RC samples, standards and field duplicates were inserted at an approximate rate of 1 in every 20 samples collected. Field duplicates were inserted into diamond core samples at a rate of 5 every 100 samples, standards at a rate of 5 every 100 samples and blanks at 2 every 100 samples. Statistical analysis of standards, blanks and duplicates during the QAQC process showed that the data was satisfactory. No issues were identified with sampling reliability
Verification of sampling and assaying	<ul style="list-style-type: none"> The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	<ul style="list-style-type: none"> Hexagon QA/QC checks show that all samples are within acceptable limits. No adjustments to assay data have been made based on the analysis of duplicates, standards and blanks. Standards from ALS laboratory were found to be acceptable. Duplicate analysis was completed and no sampling issues were identified. CSA verified several graphite intersections in core and RC chip samples during a visit to Hexagon's Joondalup warehouse during January 2015. During a site visit in October 2015, a geological consultant from CSA verified that the diamond drilling, geological logging and sampling practices were of industry standard. The consultant also verified graphite intersections in core samples. Analysis from one pair of twin holes drilled at

		<p>Barracuda resource noted lower graphite content in the diamond core samples when compared with RC samples over a comparable width. The may be due to sampling size differences. Further work needs to be completed to assess the cause of the variation.</p> <ul style="list-style-type: none"> • The Hexagon database is hosted in a SQL backend database, ensuring that data is validated as it is captured and exports are produced regularly. Assay results are merged into the database from the lab certificates limiting transcription or mapping errors from occurring. • No adjustments have been made to the results.
Location of Data points	<ul style="list-style-type: none"> • <i>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.</i> • <i>Specification of the grid system used.</i> • <i>Quality and adequacy of topographic control.</i> 	<ul style="list-style-type: none"> • 34 Collars were surveyed using Differential GPS (4 by Whelans and 31 by a surveyor from Savannah Nickel mines for the 2015 and 2106 programs). 4 Collars were surveyed by MNG Surveyors in 2017 using a DGPS. The degree of accuracy of drill hole collar location and RL is estimated to be within 0.1m for DGPS. 4 collars were surveyed using a handheld Garmin 62S and Garmin 76c Global Positioning System (GPS) with a typical ± 5 metres accuracy. Topography from contours generated from a lidar survey was used to validate collar points and assign RL values to the 3 holes surveyed by GPS that had an RL >2m different to the topography. • All holes where possible have been downhole surveyed using a north seeking gyro by ABIM Solutions. Downhole surveys completed for all holes where possible. EZshot survey data was used where downhole surveys were not successful. • Topographic control was adequate for the purposes of Exploration Target estimation. • The map projection used is the Australia Geodetic MGA 94 Zone 52.
Data spacing and distribution	<ul style="list-style-type: none"> • <i>Data spacing for reporting of Exploration Results.</i> • <i>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.</i> • <i>Whether sample compositing has been applied.</i> 	<ul style="list-style-type: none"> • Drill spacing on an approximate 20m by 50m grid throughout the deposit area, increasing to 100m along strike in the target area. • Geological interpretation and mineralisation continuity analysis indicates that data spacing is sufficient for definition of a Mineral Resource.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> • <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i> • <i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias,</i> 	<ul style="list-style-type: none"> • Holes drilled generally dipping at -60° perpendicular to the sub-vertical graphitic schist unit • Diamond drill core has been orientated using a Reflex ACE tool 9Act II), with α and β angles measured and positioned using a Kenometer. MapInfo software was used to calculate dip and dip direction for each structure. • The relationship between the drilling orientation and the orientation of key mineralised structures is not considered to have introduced a sampling bias.

	<i>this should be assessed and reported if material.</i>	
Sample Security	<ul style="list-style-type: none"> <i>The measures taken to ensure sample security.</i> 	<ul style="list-style-type: none"> Unique sample number was retained during the whole process RC and diamond samples were placed into calico bags and then into self-sealing plastic bags prior to being put into bulka bags. The bulka bags were then transported by road. RC samples were sent to the ALS laboratory in Brisbane for preparation and analysis and diamond core samples were sent to ALS in Perth for preparation and then to ALS in Brisbane for analysis. Drill core transported to Westernex was secured on pallets with metal strapping and transported to Perth by road train. The sample security is considered to be adequate.
Audits or reviews	<ul style="list-style-type: none"> <i>The results of any audits or reviews of sampling techniques and data.</i> 	<ul style="list-style-type: none"> Sampling techniques and data collected methods have been audited by CSA during a site visit in October 2015 Field data is managed by an independent data management consultancy Rocksolid Solutions. All data collected was subject to internal review The Barracuda resource has been externally audited by Optiro in May 2017

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> <i>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.</i> <p><i>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.</i></p>	<ul style="list-style-type: none"> Drilling at the Barracuda deposit occurred on exploration lease E80/3864. This tenement is held by McIntosh Resources Pty Ltd who is a wholly owned subsidiary of Hexagon Resources. Hexagon Resources entered into a joint venture arrangement with Mineral Resources Ltd (MRL) who are the managers of exploration on the project.
Exploration done by other parties	<ul style="list-style-type: none"> <i>Acknowledgment and appraisal of exploration by other parties.</i> 	<ul style="list-style-type: none"> The East Kimberley has been largely explored for base metals and diamonds with no active previous exploration for graphite. Graphite had been noted by Gemutz during regional mapping in the Mabel Downs area for the BMR in 1967, by Rugless mapping and RAB drilling in the vicinity of Melon Patch bore, to the east of the Great Northern Highway in 1993 and has been located during nickel exploration by Australian Anglo American Ltd, Panoramic Resources Ltd and Thundelarra Resources Ltd over the last 20 years.
Geology	<ul style="list-style-type: none"> <i>Deposit type, geological setting and style of mineralisation.</i> 	<ul style="list-style-type: none"> The McIntosh Project graphite schist horizons occur in the high grade terrain of the Halls Creek Mobile Zone of Western Australia. The host stratigraphy is the Tickalara Metamorphic which extend for approximately 130 km along the western side of the major Halls Creek Fault. The metamorphic rocks reach granulite

		<p>metamorphic facies under conditions of high-temperature and high pressure although the metamorphic grade in the McIntosh Project area appears to be largely upper amphibolite facies with the presence of key minerals such as sillimanite and evidence of original cordierite.</p> <ul style="list-style-type: none"> Hexagon has identified potential graphite schist horizons based on GSWA mapping and EM anomalism over a strike length in excess of 15km within the project area, with potential for an additional 35km strike length of graphite bearing material from lower order EM anomalism.
Drill hole Information	<ul style="list-style-type: none"> <i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes:</i> <ul style="list-style-type: none"> <i>easting and northing of the drillhole collar</i> <i>elevation or RL (elevation above sea level in metres) of the drillhole collar</i> <i>dip and azimuth of the hole</i> <i>down hole length and interception depth</i> <i>hole length.</i> 	<ul style="list-style-type: none"> 5 diamond drill holes for 396.4m and 38 RC drill holes for 3,111m (43 drill holes in total) have been completed at the Barracuda deposit. Hole locations tabulated and reported in the body of the report.
Data aggregation methods	<ul style="list-style-type: none"> <i>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.</i> 	<ul style="list-style-type: none"> Data compiled in excel and validated in Datashed by an external data management consultancy. RC samples were all 1m in length, diamond core samples vary between 1m and 2m samples. Metal equivalents are not reported as this is an industrial mineral project where the mineral properties define grade (e.g. flake size and purity). A nominal 3% Total Graphitic Carbon cut-off has been applied in the determination of significant intercepts
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <i>If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.</i> <i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect.</i> 	<ul style="list-style-type: none"> Mineralised widths at Barracuda are estimated to be typically between 5m and 20m, compared with RC samples of 1m width. There is a very close relationship between the graphitic schist unit and Total Graphitic Carbon (TGC%) assays. The presence of graphitic schist is clearly evident in both the RC chips and diamond drill core so that the assay widths can be clearly related to the geological logs. The graphitic schist horizon has been interpreted a sub vertical unit striking north, north-east. Angled drill holes (generally 60°) have targeted the mineralised unit with the priority to intersect perpendicular to the strike of the graphitic schist horizon. Interpreted EM data and the width of intersections where holes were drilled perpendicular to the unit have allowed for a good indication of unit thickness to be made and applied in areas where the information is not available.
Diagrams	<ul style="list-style-type: none"> <i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any</i> 	<ul style="list-style-type: none"> Not relevant as reporting a Mineral Resource.

	<i>significant discovery being reported These should include, but not be limited to a plan view of drillhole collar locations and appropriate sectional views.</i>	
Balanced reporting	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Exploration results are not being reported for the Mineral Resources area.
Other substantive exploration data	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The September 2014 VTEM Supermax survey over the McIntosh Flake Graphite Project covered a total of 642 line kilometres and identified a total of 12 high-priority anomalies. Five of these were previously identified by induced polarisation (IP) and historical electromagnetic (EM) techniques and confirmed to be flake graphite schist by geological field mapping, petrographic analysis, rock chip sampling and exploration drilling. VTEM geophysical work was carried out by Geotech Limited with the data validated and processed by Southern Geoscience Consultants (SGC).
Further work	<ul style="list-style-type: none"> The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). 	<ul style="list-style-type: none"> Further diamond core drilling has been recommended to twin and verify existing RC holes at Barracuda. This core is planned to be assayed for TGC and examined petrographically to assess graphite flake characteristics. Dry density work on core to be carried out on mineralised and background domains. Program to assess moisture content of Barracuda material. Metallurgical testwork.

Section 3 Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
Database integrity	<ul style="list-style-type: none"> Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. <p><i>Data validation procedures used.</i></p>	<ul style="list-style-type: none"> Primary data was captured into spreadsheet format by the supervising geologist, validated and subsequently loaded into Hexagon's database. Database extracted as an .mdb access file from Datashed and validated before importing into Surpac. Additional data validation by Optiro; included checking for out of range assay data and overlapping or missing intervals.
Site Visits	<ul style="list-style-type: none"> Comment on any site visits undertaken by the Competent Person and the outcome of those visits. 	<ul style="list-style-type: none"> A site visit was completed by S. Tomlinson (CP) in 2015 and 2017 where the drill hole collar locations were observed as well as outcropping graphite mineralisation. The drill hole locations were in positions as per the database and outcropping graphite was comparable to resource interpretation. The diamond and RC drill rigs were inspecting,

		sampling procedures checked, RC chips and diamond core logged.
Geological interpretation	<ul style="list-style-type: none"> Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. <p>The factors affecting continuity both of grade and geology.</p>	<ul style="list-style-type: none"> Geological interpretation based on lithology logging, structural logging, geochemical sampling, prospect scale surface mapping and modelled VTEM data collected during the 2014 VTEM Supermax survey. Drill coverage to ~50m x 20m. Mineralisation wireframe produced based on soft 3% TGC cut-off grade delineating ore/waste boundary. Internal dilution in the main mineralised envelope has been modelled as two domains. Further modelling of mafic intrusive bodies have also been modelled. The base of oxidation was modelled as part of the Barracuda resource. Confidence in the grade and geological continuity is reflected in the Mineral Resource classification.
Dimensions	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The Barracuda resource extends 300m south-west to north-east. The mineralisation follows the bedding of the hosting graphite schist units ranging in thickness between 5 and 20m. Mineralisation is open along strike and at depth along the fold limbs.
Estimation and modelling techniques	<ul style="list-style-type: none"> 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. The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. The assumptions made regarding recovery of by-products. Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation). In the case of block model interpolation, the block size in relation to the average sample spacing and the 	<ul style="list-style-type: none"> The resource was modelled using Geovia's Surpac v6.9 modelling software. Drill hole sample data was flagged from interpretations of the top and base of the mineralisation horizon. Sample length was composited to 1m down hole length. Top grade cuts were not applied Total Graphitic Carbon (TGC) estimated by Inverse Distance cubed (ID²) for mineralised domains. Density was assigned based on the average of water submission samples collected from other comparable deposits at McIntosh. Statistical analysis was completed to investigate evaluate the estimated grades to composite grades. TGC mineralisation continuity was interpreted to cover 260m (5 drill lines). The Barracuda deposit has been classified as Indicated based on drilling data density. Confidence for the resource in these areas is also gained from the VTEM survey completed over the area. The maximum extrapolation distance is 50 m along strike and 20 m across strike. Grade estimation was into parent blocks of 5 mE by 20mN by 5 mRL. Block size was selected based on kriging neighbourhood analysis. Estimation was carried out using ID² at the parent block scale. The search ellipses were oriented within the plane of the mineralisation. Two estimation passes were used; the first search was 100m along the major axis with the second search two times the initial search. Around 93% of the block grades were estimated in the first pass. The estimated TGC and S block model grades were

	<p>search employed.</p> <ul style="list-style-type: none"> Any assumptions behind modelling of selective mining units. Any assumptions about correlation between variables. Description of how the geological interpretation was used to control the resource estimates. Discussion of basis for using or not using grade cutting or capping. The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available. 	<p>visually validated against the input drillhole data, comparisons were carried out against the drillhole data and by northing, easting and elevation slices.</p> <ul style="list-style-type: none"> There is no production data and so no reconciliation has taken place.
Moisture	<ul style="list-style-type: none"> Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content. 	<ul style="list-style-type: none"> The Barracuda deposit sits above the water table. Down hole dipping during the 2015 field season did not intercept water. Moisture content has not been tested
Cut-off parameters	<ul style="list-style-type: none"> The basis of the adopted cut-off grade(s) or quality parameters applied. 	<ul style="list-style-type: none"> The Mineral Resource is reported above a 3% TGC cut-off grade to reflect current commodity prices and open pit mining methods.
Mining factors or assumptions	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> It is assumed that extraction will be by open pit mining and that the mineralisation is economic to exploit to currently modelled depths. Mining factors such as dilution and ore loss have not been applied. No assumptions about minimum mining widths or dilution have been made.
Metallurgical factors or assumptions	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> A >97% graphite concentrate was produced from a process of crushing and grinding material from the McIntosh project. See results in metallurgical test work conducted by ALS Global as part of a Prefeasibility study. Refer to announcement released 31st May 2017. Metallurgical testwork on material from the McIntosh Project shows that the sulphides present are easily liberated from the graphite by flotation. The results from metallurgical testwork have been considered for Mineral Resource classification.

Environmental factors assumptions	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> No assumptions have been made regarding waste and process residue Environmental studies are being completed as part of the McIntosh Feasibility study.
Bulk density	<ul style="list-style-type: none"> Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples. The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit. <p>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</p>	<ul style="list-style-type: none"> Dry density was assigned a value of 2.80 (fresh) and 2.60 (oxide) based on dried core samples and water emersion technique carried out by SGS and ALS across deposits within the McIntosh Project. The samples were from the nearby and geologically comparable Emperor deposit. Geophysical gamma density data was also obtained but has not been included in the resource.
Classification	<ul style="list-style-type: none"> The basis for the classification of the Mineral Resources into varying confidence categories. Whether appropriate account has been taken of all relevant factors (i.e. 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). <p>Whether the result appropriately reflects the Competent Person's view of the deposit.</p>	<ul style="list-style-type: none"> Mineral Resources have been classified on the basis of confidence in geological and grade continuity using the drilling density, geological model, modelled grade continuity and conditional bias measures (slope of the regression and kriging efficiency) as criteria. The results from metallurgical testwork have been considered for Mineral Resource classification. Metallurgical testwork data confirms data obtained from the adjacent prospect. Measured Mineral Resources - none defined. Indicated Resources – defined. Mineral Resources at the Barracuda deposit have been classified as Indicated and are defined within area where the drill spacing is at least 20m by 50m and there is confidence in the geological and grade continuity. Confidence for the resource in these areas is also provided by the VTEM survey completed over the area. The classification considers all available data and quality of the estimate and reflects the Competent Person's view of the deposit.
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of Mineral Resource estimates. 	<ul style="list-style-type: none"> The resource estimate has not been reviewed by external consultants.
Discussion of relative	<ul style="list-style-type: none"> Where appropriate a statement of the relative 	<ul style="list-style-type: none"> The relative accuracy of the Mineral Resource estimate is reflected in the reporting of the Mineral

accuracy/ confidence	<p><i>accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person.</i></p> <ul style="list-style-type: none"> • <i>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.</i> 	<p>Resource as per the guidelines of the JORC Code (2012 Edition).</p> <ul style="list-style-type: none"> • The mineral resource is a global estimate of tonnes and grade. • Relative tonnages and grade above the nominated cut-off grades for TGC are provided in the body of this report. Volumes of the collated blocks sub-set by mineralisation domains were multiplied by the dry density value to derive the tonnages. The contained graphite values were calculated by multiplying the TGC grades (%) by the estimated tonnage. • No production data is available to reconcile results with.
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