MRC

MINERAL COMMODITIES LTD

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Australian Securities Exchange Company Announcements Office

30 May 2018

MRC MUNGLINUP GRAPHITE PFS CONFIRMS ROBUST PROJECT

HIGHLIGHTS

- Pre-Feasibility Study ("PFS") completed for Munglinup Graphite Project, delivering:
 - Post-tax project NPV₈ of A\$139m
 - o Post-tax project IRR of 48%
 - Average annual EBIT of A\$42.4m
 - Net Cash Flow of A\$216.5m
- Ore Reserve of 3.4 million tonnes at an average grade of 15.9% Total Graphitic Carbon (TGC)
 - Proved reserves of 1.4 million tonnes at 15.8% TGC
 - Probable reserves of 2.0 million tonnes at 16.0% TGC
- Mine life of 9 years with mineralisation open in all directions
- Operational expenditure ("opex") of US\$398/tonne (A\$531/tonne)
- Steady state throughput of 400k tonnes per annum producing high purity concentrate (>97% TGC)
- Average annual production of **54.8kt of Graphite** in concentrate
- Average basket price of US\$989/tonne
- Total capital expenditure ("capex") estimated at A\$52.4 million including owners costs and contingency
- Ongoing metallurgical testwork and planned second phase drilling program expected to further improve project outcomes in Feasibility Study ("FS")
- Discussions advanced with potential financing partners
- Detailed engineering and construction partner discussions underway with preferred partner confirmation expected in Q3, 2018
- Initial production scheduled for late 2019, subject to final investment decision

Mineral Commodities Ltd (ASX: MRC) ("MRC" or "the Company") is pleased to announce it has completed a Pre-Feasibility Study on the Munglinup Graphite Project confirming the project's excellent potential as a robust, low capex and low opex operation.

The results confirm the technical and economic viability of the project and MRC is now committed to advancing the project through a Feasibility Study (FS) towards development. The operation will have a nominal throughput of 400ktpa and produce an average of 54.8ktpa of high purity graphite concentrate.



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The project involves the development of several small open pits with a flotation plant to concentrate graphite ores. Majority of the ore will come from the Halberts Main pit and supplemental feed from the 4 satellite pits. Mineralisation is open in all directions. The graphite is hosted in gneiss metasediments, within the saprolitic zone, and as such it is anticipated at this stage that no drill and blast will be required.

Processing is via a multi-cleaner stage flotation plant with attritioning between each cleaner stage. As the ore is weathered, no primary crushing will be required. Tails will be thickened and report to a conventional, on site centerline tailings storage facility. Graphite concentrate will be bagged and shipped out to various markets.

The PFS is based on a Mineral Resource of 6.03Mt at 11.0% TGC using a 5% TGC cut-off. The previously reported Mineral Resource of 3.62Mt at 15.3% TGC used a 10% TGC cut-off¹. The Mineral Resource is inclusive of Ore Reserves. The estimated Ore Reserve is 3.44Mt at 15.9% TGC.

Executive Chairman Mark Caruso said, "The Munglinup Graphite Project continues to meet expectations as studies progress through the various stages thanks to many positive aspects of the project, particularly the deposits' excellent grades. The PFS demonstrates that the Project is robust and economically justifiable even at very low pricing scenarios and without the requirement for downstream value-add processing that many other Projects require to get acceptable economic returns. We are very pleased with the Project's rapid progress and opportunities that have been recommended in the PFS to further improve the Project economics in the next stage of study."

A summary of the PFS is attached to this release.

ORE RESERVE

The Munglinup Graphite Project will develop five separate graphite mineral deposits, namely Halberts main, Halberts South, Harris, McCarthy West and McCarthy East. MRC has completed a Pre-Feasibility Study for the Munglinup Graphite Project to produce approximately 54,800tpa on average of graphite concentrates. The PFS has been used as the basis from which to estimate the Ore Reserves for the project. The Ore Reserve for the Munglinup Graphite Deposit comprises 3.44Mt at 15.9% TGC, for 0.55Mt of contained graphite, reported in accordance with the JORC Code 2012².

The Ore Reserve was estimated from the Mineral Resource after consideration of the level of confidence in the Mineral Resource and considering material and relevant modifying factors. The Ore Reserve estimate is based on Mineral Resources classified as Measured and Indicated. No

¹ ASX Release, "MRC to acquire 51% interest in Munglinup Graphite Project" 11th September 2017

² Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. The JORC Code, 2012 Edition. Prepared by: The Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia (JORC).



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Inferred Mineral Resources have been included in the Ore Reserve. The estimated Munglinup Graphite Deposit Ore Reserve is summarised in the table below.

Area	Classification	Tonnes (kt)	Grade (%TGC)	Contained Graphite (kt)
Halberts Main	Proved	1,407	15.8	222
	Probable	1,042	19.0	198
Halberts South	Probable	194	18.2	35
Harris	Probable	65	17.8	12
McCarthy East	Probable	93	13.8	13
McCarthy West	Probable	639	10.7	68
Sub Totals	Proved	1,407	15.8	222
	Probable	2,034	16.0	326
Total		3,440	15.9	548

Pursuant to ASX Listing Rule 5.9.1, and in addition to the information contained in the body of this release and in the Appendix below MRC provides the following summary.

- The Ore Reserves are based on key modifying factors that include optimisations, analysis, detailed designs, schedules and cost estimates of a Pre-Feasibility Study that describes development of the project to produce up to 68,600 t per year of graphite concentrate for approximately 9 years.
 - Metallurgical testwork has been completed by ALS Metallurgy and supervised by Battery Limits Pty Ltd, both reputable and experienced specialists which is described in this document and supports the related modifying factors applied to the Ore Reserve estimate.
 - The mining process has been based on Measured and Indicated Mineral Resources reported in accordance with JORC, detailed mine designs, specifications from geotechnical studies and mining equipment determined from experienced engineers and mining contractors.
 - o The processing plant has been developed by experienced process design engineers, Battery Limits Pty Ltd, and is presented to an appropriate level of design required to support the recovery, throughput and production estimates used in the PFS.
 - o The infrastructure requirements have been defined by specialist engineers and industry consultants.
 - The detailed designs discussed above, have been used as the basis for capital and operating cost estimates derived from first principles estimates, benchmark data, scaling of comparable design components and vendor quotes.
- The Ore Reserve estimate comprises both Measured and Indicated Mineral Resources.
- The mining method selected for the Munglinup Graphite Project is open pit mining applying
 conventional truck and excavator techniques that are commonly practiced in this style of
 deposit and region. Given the high grade mineralisation, lack of requirement for drill and



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blast, and small excavators being employed, a mining recovery factor of 98% and dilution factor of 5% have been applied.

- The processing flowsheet is based on metallurgical testwork undertaken using a master composite that is representative of the deposit in terms of material type, grades and spatial distribution. The proposed process plant facilities for the Munglinup Graphite Project in the PFS comprise processes and equipment that are aligned with similar operations.
- The determination of ore and waste was calculated using a cashflow script that considers, on a block by block basis, graphite recovery, and operational costs including mining, processing and logistic costs.
- The basis for quality parameters applied to the Ore Reserve are metallurgical testwork and research into the desirability of the Munglinup product in the current and emerging markets for graphite products.
- The status of approvals, tenements and licenses are as follows:
 - o The Munglinup Graphite Project is located within a granted Mining Lease.
 - The environmental and social permitting process is well underway with the Mining Proposal, Mine Closure Plan, EPBC Act referral submission, Native Vegetation Clearing Permit submission, Works Approval application, Prescribed Premises License application, and Dangerous Goods License application scheduled to be submitted in August 2018.
- Graphite concentrate produced at Munglinup will be trucked to the Esperance Port and shipped to various ports as required.

This report may contain forward-looking statements. Any forward-looking statement reflect management's current beliefs based on information currently available to management and are based on what management believes to be reasonable assumptions. It should be noted that a number of factors could cause actual results, or expectations to differ materially from the results expressed or implied in the forward-looking statements.

- ENDS -

For enquires regarding this release please contact: Peter Torre – Company Secretary Ph +61 8 6253 1100



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Competent Persons Statements

The Mineral Resource referred to and used in this report was prepared by Adriaan du Toit who is a member of the Australian Institute of Mining and Metallurgy (AusIMM) and who is an independent consultant to Gold Terrace. Mr du Toit is the Director and Principal Geologist of AEMCO Pty Ltd. He has over 26 years of exploration and mining experience in a variety of mineral deposits and styles. Mr du Toit has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity he is undertaking to qualify as a Competent Person as defined by the 2012 JORC Edition. The information from Mr du Toit was prepared under the JORC Code 2012 Edition. Mr du Toit consents to inclusion in the report of the matters based on this information in the form and context in which it appears.

The Ore Reserve referred to and used in this report was prepared by Mr Daniel Hastings, who is a Member of the Australasian Institute of Mining and Metallurgy (AusIMM). Mr Hastings is an employee of Hastings Bell Pty Ltd and a consultant to the Company. Mr Hastings has sufficient experience relevant to the type of deposit under consideration to qualify as a Competent Person as defined by the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code, 2012 Edition). Mr Hastings consents to the inclusion in the report of the matters based on the reviewed information in the form and context in which it appears.

The information in this report that relates to the Ore Reserve Statement, has been compiled in accordance with the guidelines of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code - 2012 Edition).

The information in this document that relates to metallurgy, the process plant and infrastructure design is based on information compiled and reviewed by Mr David Pass, who is a Member of the Australasian Institute of Mining and Metallurgy (AusIMM). Mr Pass is an employee of Battery Limits. Mr Pass has sufficient experience relevant to process plant and infrastructure design thereof to qualify as a Competent Person as defined by the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code, 2012 Edition). Mr Pass consents to the inclusion in the report of the matters based on the reviewed information in the form and context in which it appears.



Munglinup Graphite Project Pre-Feasibility Study

Study Summary



The Munglinup Graphite Project consists of the development of a small, open pits based graphite operation near Esperance in Western Australia. The operation will have a nominal throughput of 400ktpa and produce an average of 54.8ktpa of high purity graphite concentrate. Initial mine life is 9 years.

Processing will be via a reasonably standard flotation circuit with a trommel front end, a rougher and 5 cleaner flotation stages with attritioning between stages. Tailings will be thickened and sent to a conventional tailings storage facility.

Graphite concentrate will be sold in concentrate form as well as being used as potential feedstock for further downstream, value add processing currently being assessed by MRC.

Value Drivers and Risks:

The primary value driver for the Munglinup Graphite Project is the high graphite grade of the deposit and the high purity concentrate product. The current Mineral Resource is 15.3% TGC with the production target slightly higher at 15.9% TGC.

The project will produce on average 54.8ktpa of high purity graphite concentrate per year at a life of mine production cash cost of A\$531/t graphite. Current basket pricing for Munglinup graphite concentrate based on Benchmark Minerals Intelligence and Roskill pricing data is estimated at around A\$1,300/t. Initial capital costs are estimated at A\$52 million including 15% EPC costs (A\$5.5M), 15% contingency (A\$6M) and all owners costs (A\$3M).

The other major value driver for the project is the location. Very few global graphite operations exist in stable, low sovereign risk jurisdictions such as Australia. This stability and ability to provide consistent product thanks also to excellent infrastructure makes Munglinup graphite concentrate a highly desirable product.

The project will be positioned to take advantage of the energy revolution currently taking place. With battery production poised to grow significantly over the coming decade, graphite supply will be critical to sustaining this growth. Further, with supply currently controlled by China, new production outside of China will be highly regarded.

Project risks are predominantly risks that result in project delays. Delays in securing environmental approvals and permits, delays in commissioning the process plant and reaching nameplate throughput, and delays in getting the Munglinup concentrate qualified for high value applications.

No fatal flaw risks associated with the project have been identified. Mineral Resource risk is minimal as historical core and the recent drilling program have validated the geological model. Graphite flake size distribution in concentrate does require further work however this is not critical to the project's success.

Mining risk is estimated to be low with the project requiring small open pits in saprolitic material, and not requiring drill and blast. Geotechnically the project is conservative with overall pit angles of 45 degrees in the foot wall and 36 degrees in the hanging wall. With likely groundwater inflows and low competency material hosting the targeted mineralisation, geotechnical risk is considered to be a priority for mitigation and risk management.

Metallurgical risk has been reduced through significant testwork. Metallurgical performance of the Munglinup mineralisation is in line with comparable deposits. The proposed flowsheet is relatively straight forward. There is risk associated with progressing from benchtop to full



scale, but this will predominantly result in schedule issues only. Scale-up risks may in part also be addressed through pilot-scale testing.

Infrastructure is excellent with process water available on site, mains power and the South Coast Highway are within a few kilometers of the deposit. Esperance township, including a significant port is 112 kilometers away. It is possible that excess water disposal could be problematic and evaporation ponds and/or mechanical evaporators may need to be employed. Initial analysis of the groundwater shows that the water is saline (slightly below sea water) but other than that has no significant issues.

The Mining Lease sits co-incident to a Mining Reserve which has resulted in Native Title being extinguished.

Environmentally, the project is in a sensitive area which will require working through a set process. The risk is that significant delays may ensue as the required process is undertaken. Work to date suggests that the risk of having the project reviewed under the EPA and EPBC is low to medium. A plan has been developed and put in place to reduce this risk.

Strategic Context:

This project is a key component of MRC's business strategy in reducing reliance on a single operation / commodity and decreasing sovereign risk through geographical diversification. The Munglinup Graphite Project currently presents an excellent opportunity to secure a robust project with limited sovereign risk, exposure to a growing industry and a potentially short timeframe to production.

Competitive Position:

MRC will be in an excellent position compared with other potential and current operators. The Munglinup deposit is extremely high grade when compared to its peers as shown in the chart below (Munglinup Ore Reserve of 3.4Mt @ 15.9% TGC). This high feed grade allows the project to be cost competitive and is projected to be in the first quartile of the cost curve.

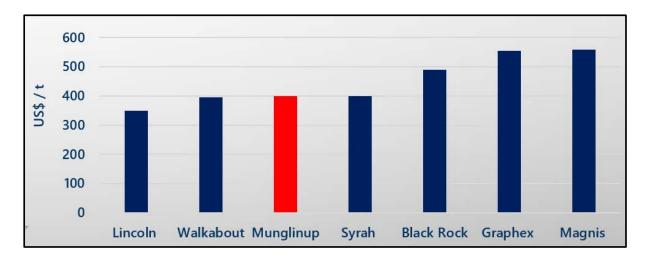


Figure 1 - Comparison of peer estimated operating costs

The high grade also allows for lower capital costs to develop the project thanks to smaller throughput requirements.



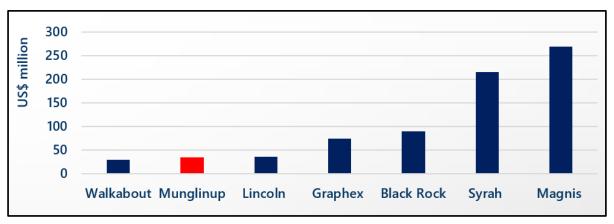


Figure 2 - Comparison of peer capital development costs

The other main competitive advantage MRC will have over most other current and future producers is that the Munglinup operation is in a stable, Tier 1 jurisdiction. Consistency of supply is a critical property for graphite customer, specifically those in the high value spaces such as energy storage. With majority of supply coming from China and East Africa, Munglinup offers the potential to be a long term, stable, consistent supplier of high purity graphite.

Finance:

The project has no fatal flaws. It is value accretive, with primary commercial justification for the investment being its commercial return.

Discussions are underway with select financial firms to provide suitable levels of debt finance for the project and term sheets are currently being developed. There is also significant appetite from the current share register to provide equity financing.

Ultimately the mix of financing will depend upon the appetite for debt from the market and MRC's consideration of the most suitable debt/equity mix.

PROJECT SUMMARY:

Geology:

The Munglinup graphite deposits occur in a zone of graphitic schists within a sequence of hornblende and hornblende-garnet gneisses. The rocks have been broadly folded about a WNWESE axis. General strike of foliation is NE-SW, with a dip of 30°SE, although locally may be steeper (40° to 60°). Complex small-scale folding and faulting is common in the relatively incompetent graphitic rocks and the enclosing competent hornblendic gneisses appears to be less deformed.

Graphite occurs in layered zones in metamorphosed carbonaceous schists and gneisses. All known intersections of graphitic material occur within saprolite, consisting of clays, quartz, graphite (up to 25% flake) and goethite. Weathering extends down to at least 60m. Individual graphite horizons vary in thickness up to a maximum of 14m. The graphite content in the zones is variable both vertically and horizontally.

Five areas/prospects of graphite mineralisation have been identified within the Lease namely Halberts Main Zone, White's, McCarthy's, Harris and Halberts South Zone.

Total Graphite Content grade was modelled using Leapfrog Geo software.



Mineral Resource 5% Cut-off

Area	Classification	Tonnes (kt)	Grade (%TGC)	Contained Graphite (kt)
Halberts Main	Measured	2,968	10.3	306
	Indicated	1,722	11.6	200
Halberts South	Indicated	240	17.9	43
Harris	Indicated	136	14.5	20
McCarthy East	Indicated	79	17.6	14
McCarthy West	Indicated	881	9.5	84
Sub Totals	Measured	2,968	10.3	306
	Indicated	3,058	11.8	360
Total		6,026	11.0	666

Table 1 – Munglinup 2016 Mineral Resource Estimate @ 5% TGC cut-off

Mining:

A simplified small tonnage, open pit mining operation has been envisaged for the Munglinup Graphite Project. 40t to 90t class excavators and 45t articulated dump trucks will comprise the main load and haul fleet with auxiliary bulldozers, graders, rollers, and loaders. At this stage no drill and blast activities are anticipated with exploration drilling showing the mineralisation and host rock to the modelled depth is free dig.

In terms of overall pit slopes, those chosen for Halberts Main Zone and other, smaller satellite pits are reasonably conservative by comparison with similar depth pits in oxidised rock elsewhere in Western Australia. The west wall (footwall) which includes the haul ramp, slopes 45° overall, whereas the east wall is at 36° overall slope angle.

Recent drilling has indicated a potential for significant pit water inflows. This will require pit wall drainage and boundary wells to reduce the phreatic zone along with in-pit dewatering. Water disposal may require additional investment as riverine disposal is not expected to be approved except for emergencies.

The Mineral Resource model was coded for cashflow based on the financial model inputs including recoveries, costs and commodity pricing. This allowed for calculation of the value of each block as ore and as waste. The model was then optimised using Whittle 4X to derive pit shells at various revenue factors. A pit by pit analysis was undertaken and a specified case developed for each pit, with Halberts Main having a 5-bench fixed lead. Pushbacks were manually set based on the Pit by Pit graph and final pit shells selected.

Detailed pit designs were then created for each pit. Ramps were built into the footwalls with a dual lane ramp in Halberts Main and single width ramps in all the other pits due to their small size. The Ore Reserve was then estimated by reporting the material within each of the designed pits. Material is designated as ore where cashflow is positive and waste where cashflow is negative. The Ore Reserve is reported below.



Ore Reserve cashflow cut-off

Area	Classification	Tonnes (kt)	Grade (%TGC)	Contained Graphite (kt)
Halberts Main	Proved	1,407	15.8	222
	Probable	1,042	19.0	198
Halberts South	Probable	194	18.2	35
Harris	Probable	65	17.8	12
McCarthy East	Probable	93	13.8	13
McCarthy West	Probable	639	10.7	68
Sub Totals	Proved	1,407	15.8	222
	Probable	2,034	16.0	326
Total		3,440	15.9	548

Table 2 – Munglinup 2018 Ore Reserve Estimate using variable cashflow cut-off

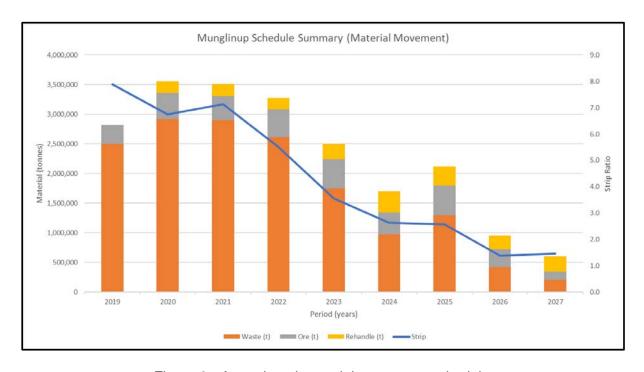


Figure 3 - Annual total material movement schedule



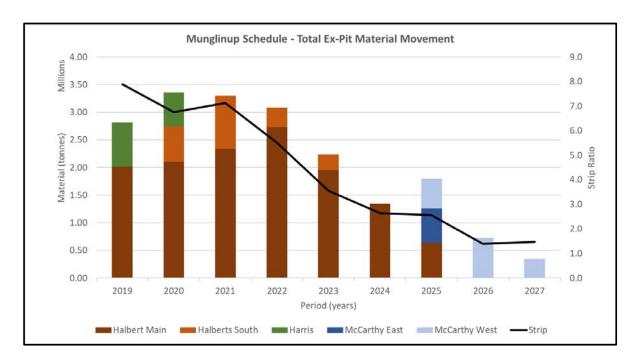


Figure 4 - Annual ex-pit material movement schedule

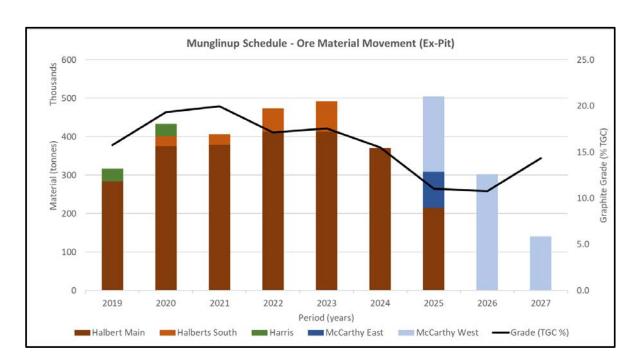


Figure 5 - Annual ex-pit ore movement schedule



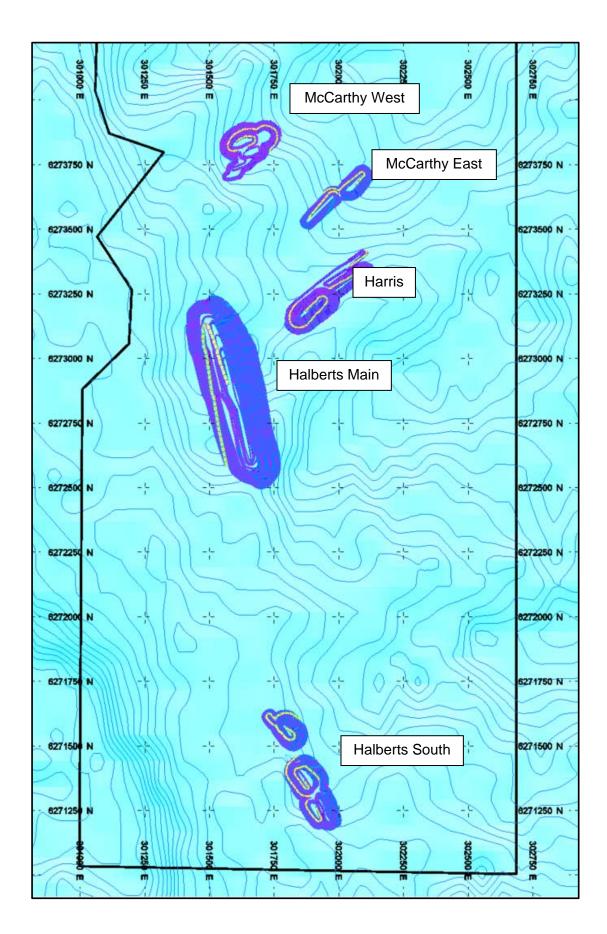


Figure 6 - Plan of Final Pits at Munglinup (2m surface contours)



Processing:

The project processing plant is designed to treat 400ktpa of ore. The ROM ore will be scrubbed, followed by grinding, with graphite recovered by flotation. The process includes inter-stage re-grind milling of flotation cleaners' concentrates to improve liberation and hence product purity. The flotation concentrate is then dewatered, dried and bagged. The PFS flow sheet is given below.

The scrubbing and crushing plant will reduce ROM ore to P80 10mm and will operate 24hr/day with an operating time to match the processing plant. The circuit will comprise a ROM bin with discharge feeding a drum scrubber/screen assembly. Undersize material is pumped to the milling circuit with oversize material crushed by impact crusher.

Crusher product reports to the milling circuit which consists of a rod mill in closed circuit with a vibrating screen, to produce a product P80 of 500µm. Initial rod milling liberates the graphite flakes from the host gangue by milling to a size whereby optimum graphite recovery will be achieved in the subsequent flotation steps without undue breakage of the coarser graphite flakes.

Flotation feed is pumped to deslime cyclones (cut off 25µm), with slimes reporting to the tailings thickener and cyclones underflows reporting to the flotation circuit. The flotation circuit consists of rougher flotation followed by five stages of regrind milling and cleaner flotation.

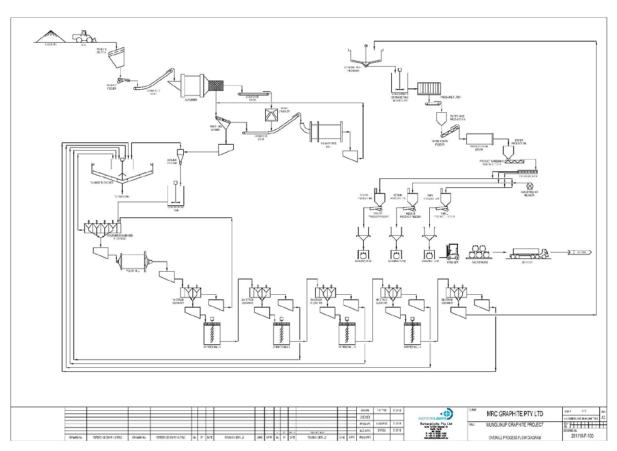


Figure 7 - Updated Munglinup Graphite Project flow sheet

Reagents used throughout the circuit consist of kerosene collector, polyfroth frother and sodium silicate depressant. Reagents will be stage dosed as required.

Tailings from the rougher and cleaner flotation circuits report to a tailings thickener and are pumped to the TSF. The PFS flowsheet has all cleaner flotation tails reporting to the thickener



i.e. the circuit is set-up as open-circuit. This results in a conservative position with respect to recoveries but simplifies control by eliminating recycle streams in the first instance. Thickener overflow water gravitates to the process water pond for recycling. Additional water is recovered from the TSF via a tailing return water system.

The high-grade graphite flotation concentrate is filtered using a plate and frame filter and dried using a rotary kiln dryer. The product is then sized over multideck screens and discharges into storage hoppers. From the concentrate bins the concentrate is transferred batch-wise by feeders to a bagging machine for packing into 1t bags. The bags are then loaded onto trucks for transport to Esperance for shipment.

The principal production objective of the plant design is a marketable high-grade graphite product which is sized in ranges appropriate for targeted market segments and so maximises the basket value of the graphite concentrate.

The proposed flowsheet above has been developed based on the metallurgical testwork undertaken to date and derived basic Process Design Criteria. The process plant design is based on a metallurgical flowsheet with unit operations that are conventional, well proven and aligned with current graphite industry practice.

The key criteria for plant design and equipment selection have been the suitability for duty, reliability, and ease of maintenance. The key features of the design include:

- Locating the processing plant close to the mine to provide a compact and integrated mining and milling facility
- Design as a fixed plant, using modular plant where practical
- Maintaining operational flexibility
- Use of mineral industry proven methods and equipment
- Use of a single processing line
- Designed to operate on a 24-hour basis

Infrastructure:

Horizon Power purchases power from a 38.5MW IPP generation station located at the Southern Ports Authority, Esperance. In addition to the power station, Synergy operates a wind farm with a generation capacity of approximately 5MW. A 33kV, 3 phase radial feeder that supports light regional loads follows the South West Coastal Highway and terminates at CBH's grain facility at Munglinup. This feeder line is less than 4 kilometers from the project area and has the capacity to supply the project.

Water demand is estimated to average 1m³/t mill feed. This translates to just under 14 litres per second. The plant will have a dedicated tails thickener and concentrate thickener. The overflow from both thickeners will gravitate to the process water pond for re-use within the process plant. Recent groundwater drilling has identified significant groundwater sources on the Mining Lease which can be developed to provide process water should the pit dewatering activities not provide adequate supplies.





Figure 8 – location of groundwater bores (HDRC 001 between Halberts Main and Halberts South, HDRC 002 located at Halberts South, HDRC 003 located at Halberts Main and HDRC 004 located north of Halberts Main)

The Tailings Storage Facility (TSF) is located in the south-eastern portion of the Mining Lease between two ridges, with the natural ground level ranging between RL 88m in the south-western corner and RL 102m along the northern and southern ridges. The topography dips in a south westerly direction towards the major creek traversing the Mining Lease. The western perimeter of the proposed TSF site is approximately 500m from the Munglinup River.

By utilising the natural ridgelines, the total embankment fill requirements have been reduced. However, a series of saddle dams will be required to fill in low-spots between the ridgelines to meet storage capacity requirements. Dedicated borrow sources will be required for the construction of the starter embankments and wall raises.

Raw tailings, conventional tailings, thickened tailings and filtered tailings options were all assessed with respect to percent solids and various models constructed. In addition to the tailings storage requirement, there will be a requirement to store additional rain water from a 100-year, 72-hour flood event plus an extra 0.5m of freeboard for the conventional and thickened tailings options to meet regulatory requirements.

The preferred option is to undertake a centerline tailings storage facility for thickened tailings with an option for backfilling of a final pit, potentially pre-mined and the ore stockpiled for commissioning. The pit void could be used to store the fine material produced from de-sliming the ore feed which will have significant benefits for the material to be put in the TSF. The centerline tailings storage facility will be buttressed with ROM waste material. The current design assumes a nominal 35m width of ROM waste as buttress material. The cost of placing this waste is no greater than using the planned waste dump.



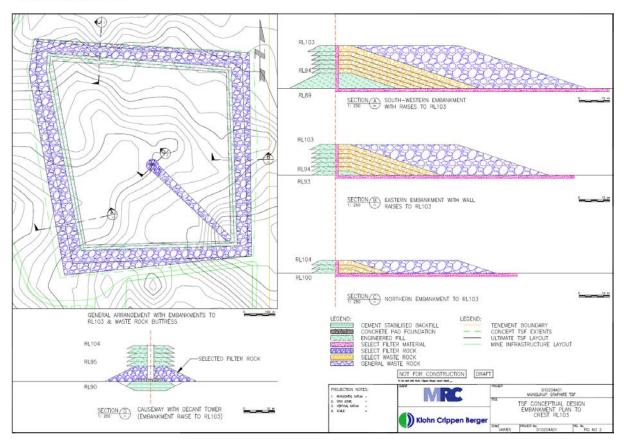


Figure 9 – Conceptual Thickened Centerline Tailings Storage Facility design

Key considerations for the operation of the thickened TSF options include:

- A centrally located pump-out decant structure to return the bleed water to the process plant.
- A return water dam with 5,000m³ capacity will be constructed to store approximately 5 days of processes water.
- A seepage collection system is assumed to be required with gravity drainage to a central point at the downstream toe of the perimeter embankment.
- The TSF will require an operational freeboard of ~1m of flood storage (100-year, 72-hr event) + 0.5m contingency freeboard.
- Deposition points along perimeter embankment as required.
- The impoundment surface area is relatively large which will likely result in high evaporation rates.

Buildings within the plant, administration, and infrastructure areas will generally be of the modular (transportable) prefabricated type, including some dome-shelter type buildings. Shelter buildings for the filtration, drying, screening and packaging will be of steel-framed constructions only where necessary. These buildings will include:



- Site administration and plant offices including security, clinic, etc.
- Crib and ablution blocks
- Control rooms and MCC
- Process plant shelter buildings and laboratory

Feature	Description	Area (ha)
McCarthy West Pit	Open Pit	3.61
McCarthy East Pit	Open Pit	2.47
Harris Pit	Open Pit	4.51
Halberts Main	Open Pit	16.3
Open Pit 5	Open Pit	1.91
Halberts South Pit	Open Pit	3.99
Waste Rock Landform	Waste Rock Landform	28.38
TSF	Tailings Storage Facility	51.09
Haul / LV Roads	Roads	7.84
Process Plant	Infrastructure	0.23
Warehouse	Infrastructure	0.23
Ore Stockpile and ROM	Infrastructure	4.16
Tails Thickener	Infrastructure	0.02
Process Plant	Infrastructure	0.16
Workshops	Infrastructure	0.23
Administration	Infrastructure	0.12
Hardstand / Roads	Supporting Infrastructure	1.5
Fuel Storage	Infrastructure	0.04
Mill	Infrastructure	0.09
Process Water Pond	Infrastructure	0.1
Crusher	Infrastructure	0.11
Car Park	Infrastructure	0.2

Table 3 - Proposed Layout areas of disturbance



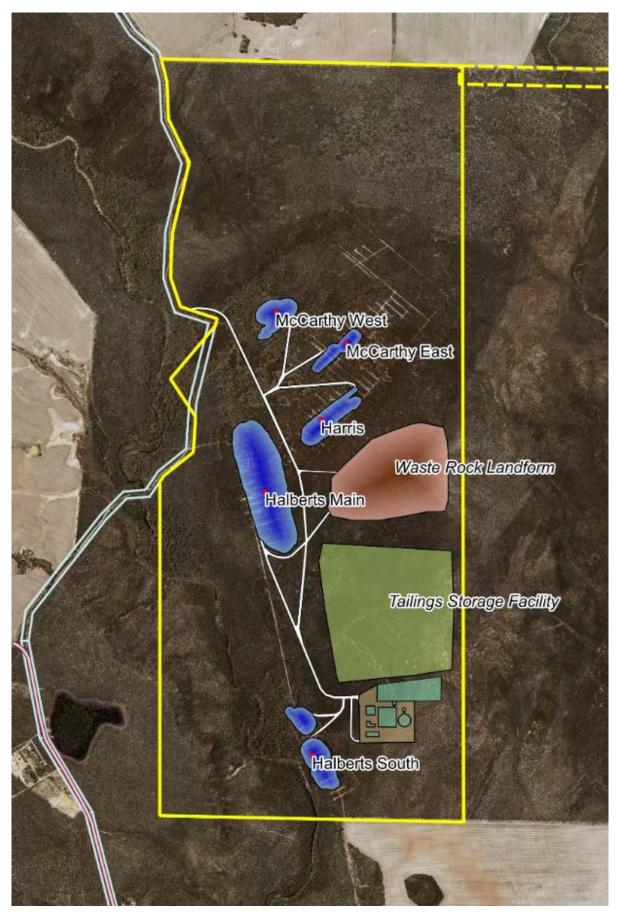


Figure 10 - Proposed Layout of the Munglinup Graphite Project



Marketing:

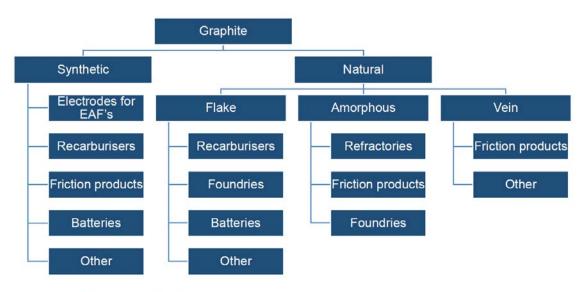
Graphite materials fit into two primary classifications:

<u>Synthetic Graphite</u>; manufactured product made by high-temperature treatment of amorphous carbon materials. The manufacturing process consists of various mixing, molding, and baking operations followed by heat-treating to temperatures between 2500°C and 3000°C

<u>Natural Graphite</u>; has 3 types, being Flake, Amorphous (also known as Microcrystalline) and Vein.

Key product markets for the graphite (synthetic and natural) market include:

- Recarburisers carbon additives used in steel and cast-iron production as a hardening agent
- Foundries production of metal castings (primarily cast iron)
- Refractories materials used in linings for furnaces, kilns and reactors
- Lithium-ion batteries used as an anode material
- Expandables used primarily in heat sinks and fire retardants
- Other industrial markets these include friction products (carbon brushes, brake pads and hard metals) which utilize graphite's superior wear properties, lubricants, and other applications including metallurgical powders, foils and gaskets



Source: Company Reports, Canaccord Genuity

Figure 11 - Graphite market overview of uses



Applications and the type of graphite required for them are summarised in the below table.

Graphit	Graphite types, applications and substitution					
Application	Amorphous	Flake	Vein	Secondary Synthetic	Primary Synthetic	
Batteries (alkaline & Zinc Carbon)		Х	Х	Х	Χ	
Batteries (Li-ion)		Χ		X	Χ	
Carbon Brushes		Х	Х	Х	Χ	
Conductive Coatings		Χ	Х	Х	Χ	
Expandable Graphite		Х				
Foundry Coatings	Х	Χ	Х			
Friction Materials	Х	Χ	Х	Х	Х	
Fuel Cells		Х		Х	Х	
Gaskets & Seals		Х				
Pencils	Х	Χ	Х			
Plastics		Х		Х	Х	
Powder Metals		Х	Х		Х	
Refractory uses	Х	Х	Х			
Steel & Iron (Carbon Additive)	Х	Х		Х		

Table 4 – Graphite types, applications and substitutions

Traditional markets are still the main source of demand as shown below. Demand in battery market is growing by a CAGR over 25%, and it is estimated that it will dominate the demand in the future. Traditional graphite markets, such as refractories, foundries and lubricants still have around 80% market share.

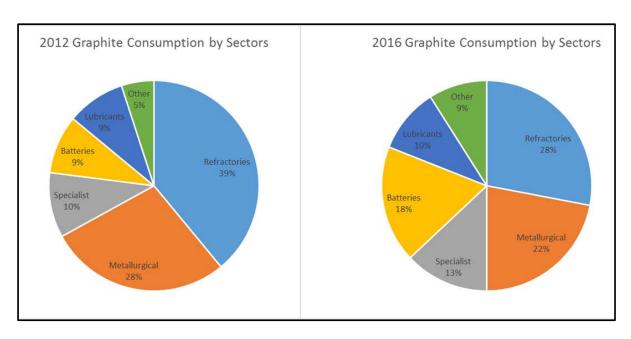


Figure 12 - Comparison of graphite consumption by sectors from 2012 to 2016

Over a century graphite production has increased from 100,000 tpa to 1.2 million tpa. Average CAGR is 2.5% for graphite production, mainly due to improving steel industries for the last century.



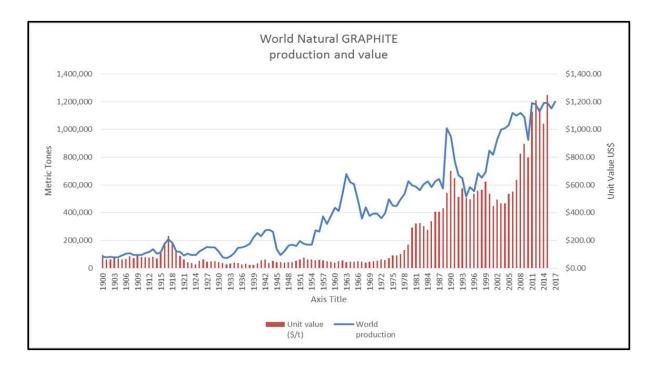


Figure 13 – World average annual natural graphite production and pricing from 1900

Since 1992 China has been the biggest producer of natural graphite accounting for 66% of total global production. Graphite prices are up 32 to 38 percent in recent years due to environmental related production problems in China and continued strong demand growth from the lithium-ion battery industry. Chinese dominance over production, environmental problems, and increasing domestic graphite demand has raised concerns over the Chinese graphite industry and forced companies to look for alternative suppliers. It is also expected that China could become a net importer of graphite in the future which will change substantially the graphite market dynamics. To secure non-Chinese reliable graphite supply is the biggest priority for the majority of graphite customers.



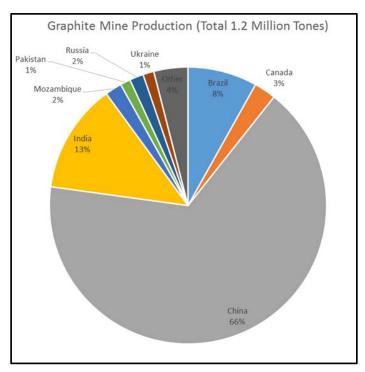


Figure 14 – Natural graphite production by country

Flake graphite can substitute for almost all other types of graphite. Overall the graphite market is over \$13 billion dollars per annum and natural graphite only accounts for 8% of this market. Environmental problems and strong demand in China has caused synthetic graphite electrode prices to rise nine-fold through the first three quarters of 2017, increasing from \$1,748/t in January 2017 to a high of \$16,309/t in September. Despite some fallback during the winter months, prices remained above \$15,600/t through February and March 2018. Spot prices were reported at up to \$35,000/t through late 2017, although most material is typically sold on a contract basis. Both synthetic and natural graphite compete for use in lithium-ion battery anodes. Recent crises in synthetic graphite will divert more demand to natural graphite.

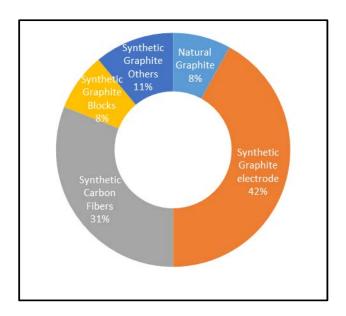


Figure 15 – Global graphite market 2012



With recovery in steel demand, and the above mentioned environmental and production issues in China, the supply/demand picture for graphite is very favourable and the potential for higher prices is very real.

Like uranium, there is a posted price for graphite which provides a guideline with respect to longer term trends, but transactions are largely based on direct negotiations between the buyer and seller. Graphite prices are also a function of flake size and purity with large (+80 mesh) and particularly larger ones (+50 mesh) and 94% plus carbon varieties commanding premium pricing. Prices in the late 1980's was quite high until 1992, when China entered the market and Chinese producers dumped product on the market. Graphite prices did not start to recover until 2005 and well surpassed US\$1,300/t with large flake selling for up to US\$3,000/t in early 2012 with some shortages reported. Price appreciation was largely a function of the commodity super cycle, and mainly because of world economic crises causing low level of stocks and production in China. Prices increased again in the last 2 years as a result of a recovery of the respective economies.

Lithium-ion batteries (LiBs) were a very small part of the market seven or eight years ago but have been growing at over 25% due to the demand for cell phones, lap tops, cameras, power tools, and electric vehicles (EVs). LiBs now account for approximately 25% of the graphite market and are expected to continue growing rapidly due to the increasing sales of electric and hybrid electric vehicles as well as stationary and grid storage solutions. Approximately 1kg of graphite is required for 1kWh for the batteries. There are more than 20 mega factories under development for the production of LiBs, and planned total capacity in the pipeline is 372 GWh.

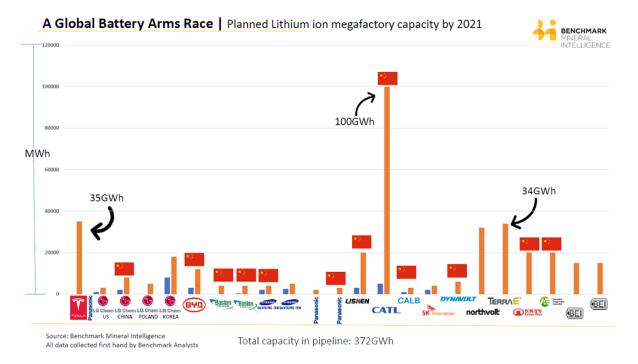


Figure 16 – Planned Lithium-ion mega-factory capacity to 2021

It is estimated that the current demand of natural graphite for LiBs of around 80,000 tpa will jump to close to 700,000 tpa by 2025.



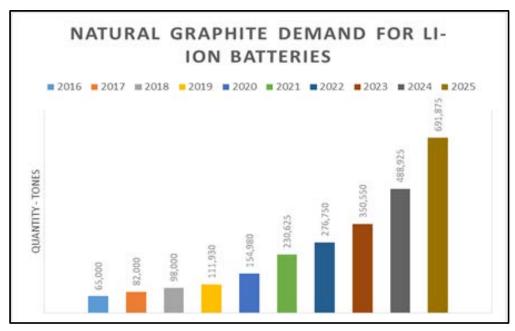


Figure 17 – Estimated natural graphite demand for Lithium ion batteries to 2025

HSEC:

HSEC considerations during both the construction and operational phases of operation will be considered in more detail during the Feasibility Study.

The projects risk assessments will continue to identify the health and safety risks posed by the project during project development, execution and operational phases.

A significant environmental assessment and management program is currently being undertaken to allow for submission of the required documentation for all permits and approvals. This includes:

- 1. Environmental Protection and Biodiversity Conservation (EPBC) Act Referral (Federal)
- 2. Environmental Protection Act (EPA) Assessment (State)
 - o EPA Part IV s38 referral
 - EPA Part IV Scoping Document
 - o EPA Part IV Environmental Review Document
- 3. Native Vegetation Clearing Permit
- 4. Mining Proposal
- 5. Mine Closure Plan
- EPA Works Approval
- 7. EPA Prescribed Premise Licence
- 8. Dangerous Goods (DG) Storage Licence



This program of work is scheduled for submission in August with approvals expected in November 2018. This assumes that no Spring survey will be required and that the project will not be referred to the EPBC or EPA for review.

Former EPA staff have assessed the Munglinup Graphite Project on the information currently available and suggest that 2 out of 5 triggers for review have been found with a possible 3rd. Generally, a project requires at least 3 triggers to be referred to the EPA and EPBC. The view is that given the size of the project it is unlikely at this stage that the project will require formal review by both the EPA and EPBC once referred.

Legal/Commercial:

MRC Graphite Pty Ltd ("MRC Graphite") and Gold Terrace Pty Ltd ("Gold Terrace") are the legal and beneficial owners of M74/245. MRC Graphite has a 51% interest in the property and Gold Terrace a 49% interest in the property. ML74/245 is a granted mining lease with a term of 21 years, expiring on 25 August 2031. EL74/505 is an exploration licence granted on 23 October 2012 for a term of 5 years, expiring on 22 October 2017. The licence is currently under renewal.

All tenements are in good standing and all rates, rents and expenditures are current and up to date. As part of the acquisition from Graphite Australia, Gold Terrace agreed to accept the liability to pay to Adelaide Prospecting Pty Ltd ("Adelaide Prospecting") a 2% gross production royalty on all minerals produced from the Tenements. Adelaide Prospecting lodged a caveat on the Tenements to protect this interest.

Under the terms of the Joint Venture agreement, MRC Graphite can acquire a further 39% interest in the property through additional consideration and completion of a feasibility study within 2 years. Section 5.1 of the joint venture agreement details the Earn-In obligation:

"On and from the JV Commencement Date, Gold Terrace grants to MRCG the right to earn the Further Interest by:

- Completing at its sole cost and expense all Exploration work necessary to complete a
 Feasibility Study during the Earn-in Period, with this being at least \$100,000, on or
 before the date which is 2 years after the JV Commencement Date (or such later date
 as may be agreed between the Parties in writing);
- MRCG paying Gold Terrace \$800,000; and
- Mineral Commodities issuing 30,000,000 MRC Shares to Gold Terrace and completing all actions required under the Corporation Act and the Listing Rules to ensure that the MRC Shares are admitted to quotation on the ASX, (collectively the Earn-in Obligation)."

The current Australian Mining and Petroleum Law Association (AMPLA) mining agreement template will be used as the basis for a mining agreement to be negotiated and finalised before the end of 2018 to ensure the agreement is in place prior to commencement of construction.

Capital:

The capital estimate has been prepared by Battery Limits Pty Ltd (processing plant and related infrastructure), Klohn Crippen Berger (KCB) (tailings storage facility), and MRC (other). Without having finalised the variability, comminution and thickening / screening testwork, Battery Limits has been unable to provide a capital cost estimate for process plant and equipment at better than +/- 35%.



Tailings storage facility costs are +/- 25% given a good understanding of the bill of quantities and supporting infrastructure. Mobile equipment, earthworks and other costs are also +/- 25%.

The processing plant cost estimate was prepared in Q1 2018 and is presented in AU\$.

Description	Capital Cost (AU\$)
Feed Preparation	\$1,500,000
Milling and Classification	\$2,460,000
Flotation and Regrind	\$6,600,000
Concentrate Handling	\$8,020,000
Reagents and Services	\$4,130,000
Tailings Thickener and Pumping	\$2,040,000
Plant Buildings	\$950,000
Plant Vehicles and Mobile Equipment	\$1,000,000
Laboratory	\$500,000
Process Water Dam and Storm Water	\$200,000
ROM Pad and Plant Site Bulk Earthworks	\$850,000
Processing Plant Total	\$28,250,000

Table 5 - Process Plant Capital Cost Estimate (Battery Limits)

The plant cost of A\$28.3M is based on the study process design as documented in the high-level Process Design Criteria and process flowsheet. The plant cost was estimated by reference to the costs for similar plants in the Battery Limits database. This was done on a section-by-section basis, adjusting the estimates to allow for differences between Munglinup and reference cases, and with reference to quoted costs for major equipment items from similar plants. This analysis was done at the level of installed costs including concrete, steel, piping, electrical and instruments, freight and installation costs, but excluding bulk site earthworks which was included under "Infrastructure". The estimate is +/- 35%.

Notional allowances for sustaining capital were estimated at \$250,000 per year.

Plant buildings were categorised in accordance with the prior breakdown structure. This put the highest cost under "Plant buildings" which includes shelter buildings as required for drying, screening and packaging, plus workshop/maintenance stores, MCC's, control rooms, lunch rooms and satellite toilet(s). Costs for weighbridge and vehicle washdown are also included. The laboratory is listed separately per the existing breakdown structure and includes equipment.

The process water pond and plant bulk earthworks were based on estimates for the same components in similar studies derived from unit rates and preliminary take-offs. The cost was scaled to reflect the size of the current project.

The initial capital cost for the tailings storage facility was estimated based on a thickened centerline dam construction. Use of in-pit disposal will reduce the initial cost of construction as the height of the starter embankment will be reduced.

Power capital costs were estimated by Independent Energy Services and assumed diesel power generation to supply 1.5MW at peak demand. Various options exist to put in place hybrid systems utilising numerous combinations of grid power, diesel generation, battery



storage and solar. All these options increase the capital cost required and hence diesel generators form the base case.

Description	Capital Cost (AU\$)
Tailings starter embankment and infrastructure	\$2,400,000
Roads	\$900,000
Bore field and Pit dewatering	\$2,500,000
Security	\$100,000
Administration and Warehouse	\$250,000
Power	\$1,300,000
Mine Development	\$500,000
Temporary construction facilities and equipment	\$1,600,000
Owners Costs (spares, first fill, overheads)	\$2,950,000
EPC @ 15%	\$5,600,000
Contingency	\$6,000,000
Processing Plant Total	\$24,150,000

Table 6 – Other Capital Costs Estimate (various)

This results in a total capital cost (real terms) for the contractor mining option of A\$52.4 million, +/- 27.5% overall, including EPC costs (15%) and contingency (15%). It is suggested that cost reductions may be possible in some areas such as the tailings starter embankment, ROM pad and pit dewatering, however this is likely to be balanced by increases in power capital costs.

An owner operator mining option increases the initial capital cost to A\$64 million, +/- 27.5%.

Development Schedule and Contracting:

MRC has adopted a continuous approach to its study stages that accommodates change through the Pre-Feasibility Study (PFS) and into the Feasibility Study (FS) stages of work.

On completion of the FS, the Project Implementation Plan will be developed to provide certainty of strategy and design while aiming to ensure that the project is delivered to schedule and the ramp-up capacity to full production is achieved in an efficient and productive timeframe. A high-level project schedule has been developed as shown below.



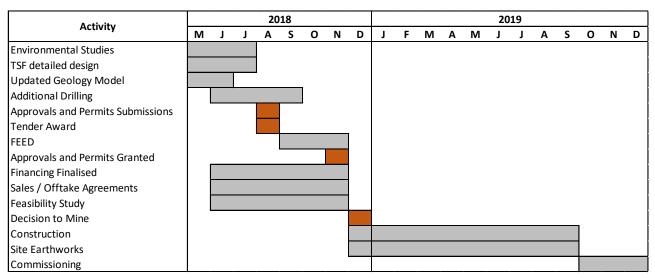


Figure 18 – High level development schedule for the Munglinup Graphite Project

The projected timeline from the completion of the PFS (May 2018) to completion of construction (November 2019) is 17 months.

To meet the proposed schedule, the implementation strategy will be structured into three stages:

- Feasibility Stage Tendering, final permitting, Front End Engineering and Design (FEED) of the treatment plant and infrastructure, and possible ordering of long lead items
- Construction Stage Including earthworks, civils, architectural, structural, mechanical / piping installation, electrical, instrumentation and other disciplines
- Commissioning and Operations Stage Plant commissioning and handover into normal operations

The most likely contracting strategy will involve MRC engaging an experienced engineering firm (Engineer) in partnership with a construction contractor to provide Engineering, Procurement and Construction (EPC) services associated with the development of the process plant and infrastructure. The exact form of the contract will be finalised prior to and during the tender process. Specialist consultants will be engaged to address specific elements of the project not within the core competency of the Engineer along with process design review which will be managed by MRC.

Formal expressions of interest have been received from a number of parties previously contacted by MRC. These expressions of interest are being reviewed and a short list of engineers and constructors will be decided in June 2018. The tender will be for both sections of the feasibility stage (FEED) and the construction stage with tender documents scheduled for issue sometime in late July 2018. Only a single Engineer and constructor will be awarded the project as running parallel contractors is not required for this project given its size and relative lack of complexity.

Responsibility for the execution and delivery of the various project scope elements will be divided between the Engineer, MRC and MRC contractors. The implementation approach requires close integration with and collaboration between MRC and the Engineer to ensure all aspects of the project development are delivered efficiently.

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RISK MANAGEMENT:

Project risks have been divided into 3 main areas, approvals/permitting risk, technical risk and marketing risk.

Approvals/Permitting Risk:

The current approvals program covers all the necessary areas to enable submission of a Mining Act Mining Proposal and Closure Plan, an EPBC Referral, an EPA Native Vegetation Clearing Permit and Works Approval, Mines and Safety Inspection Act (MSI) Project Safety Management Plan and other minor approvals. It is assumed that the EPBC and EPA referrals will not trigger formal reviews and that the project will be approved. It is further assumed that the current habitat studies will resolve outstanding issues that may require a spring survey.

There is also a possible requirement for a specific spring survey that may delay the project up to an additional 3 months to allow the survey to be conducted.

The project area lies outside of the Western Australia proclaimed groundwater area and as such does not require a 26D or 5C license for establishment of a production bore and water abstraction.

Technical Risk:

The major mining related risks to the project are:

- Resource Block Model The block model provided is focused on mineralisation and has limited geological data and structural controls. Updated modelling and further drilling, assaying and mapping will improve the geology, trends in mineralisation and possibly allow for estimating of graphite flake size distributions.
- Waste <u>Dumps</u> The waste dumps in conjunction with high rainfall and a high clay / graphite mineralogy may present operational issues. The extent of the risk needs to be further evaluated through geotechnical and waste material analysis and design with operating protocols developed to minimise risk.
- <u>Pit Wall Stability</u> The challenge of maintaining competent pit walls within weak and bedded rock in a wet environment poses a risk. If walls are not properly formed the mining area could become unstable and require remedial works or be closed off potentially sterilising the resource.
- <u>Water Management</u> Potential ground water inflows in the pit are currently being estimated through ongoing hydrogeological testing and model construction.
- <u>Tailings Storage Facility</u> Construction issues due to lack of suitable materials within the Mining Lease for the compacted core. Material characterisation work is planned to address this risk.

The major process related risks to the project are:

- <u>Process Water</u> Initial hydrogeological investigations intersected significant water within the mining lease. The water is saline (slightly below sea water quality) and has yet to be fully pump tested to measure drawdown and recharge rates. Installation of a RO plant may mitigate process and disposal risk if salinity becomes an issue.
- <u>Plant Performance</u> Additional testwork, including ore variability testwork, in the next stage of the project will improve the understanding of the metallurgical performance.



However, moving from bench scale testwork to full production will introduce plant performance risks associated with the change in scale. The current open-circuit design goes part way to addressing the product grade risks associated with recycle streams. Recycling of selected cleaner tails streams may be considered if graphite recovery is below target. A pilot-scale program may be considered to increase the level of confidence in scaling up operations.

<u>Product Specification</u> – Additional metallurgical testwork is reducing the risk however there remains a possibility that the plant is unable to achieve the expected specifications for purity, PSD and contaminants, or recovery due to process performance issues such as excessive flake attritioning in milling and inadequate liberation leading to low purity and/or low recovery. Development of a more accurate geological model and subsequent mine planning to allow ore material blending will reduce this risk. In addition, the metallurgical testwork in the next stage of the study will be designed to identify and target key areas for optimizing concentrate flake size.

Marketing Risk:

The major marketing risks to the project are:

- <u>Logistic Path</u> The logistics path from mine gate to buyer and costs associated with logistics have not been fully defined. Preliminary information and studies suggest multiple pathways are possible, all with positives and negatives. Coastal and container shipping out of Esperance Port appears to be the largest risk. A logistics expert will be engaged to build on current studies and provide the optimal logistics solution.
- <u>Pricing Reductions</u> With the ramping up of the Syrah operation it is possible that this combined with a scenario whereby China halts its environmental crackdown could see natural flake graphite prices fall due to oversupply. Being a likely first quartile cost producer will insulate the project, but profitability will be eroded. Finding alternative and niche markets, along with long term binding contracts, will mitigate this risk to a degree. Employing an experienced graphite marketing manager and developing the project at a scale that does not overwhelm the near-term market will facilitate this risk reduction strategy.
- <u>Product Specification</u> Should the project fail to meet the required product specifications generated from benchtop scale studies it is possible that offtake agreements and other clients will not pay a premium for the Munglinup concentrate or even reject outright. No premium has been built into the financial model. The marketing bulk sample will help to address this risk. The testwork results to date show that a high grade concentrate can be produced consistently.

INVESTMENT EVALUATION:

Investment Alternatives:

As the proposed investment is a greenfield development there is no 'Optimised Pre-Investment' alternative. The optimised post investment alternatives assessed in the Pre-Feasibility Study were:

- 1) Reducing the throughput from 400ktpa to 300ktpa
- 2) Operating an owners mining fleet
- 3) Contract mining
- 4) Pre-mining McCarthy West prior to commissioning and backfilling the pit with tailings



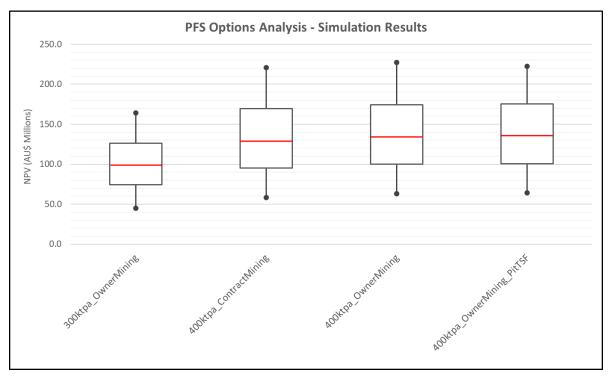


Figure 19 – Summary output of simulations of various alternatives considered (box represents 80% confidence limits; red line is mean value)

Alternative 1 - Throughput

This alternative was assessed to determine the impact of reducing throughput on the financial analysis. 400ktpa was selected as an appropriate throughput during the Scoping Study phase on advice from Battery Limits and others regarding graphite production. Generally, more than 40ktpa of graphite concentrate is estimated as being the lower limit for profitability.

There are no easy ways to determine optimal mine life however an approximation using Taylor's Rule can be calculated. Based on the diluted Ore Reserve at Munglinup Taylor's rule estimates the optimal mine life at 8.8 years. Current Mine Life is 8.6 years with a ramp up in 2019 and only partial production in the final year based on the current Mineral Resource.

To confirm this throughput, a lower throughput case was developed with the capital costs scaled down appropriately. The model showed that the lower throughput case delivered a lower NPV and IRR compared to all other cases. Increasing throughput further was not modelled as it would no doubt show increased NPV and IRR however marketing large parcels of concentrate and increasing the estimated capital cost above A\$50 million were deemed unwarranted given the higher risk profile for higher concentrate production rates.

Given these considerations the 400ktpa throughput option was selected as the base case.

Alternative 2 and 3 - Owner vs. Contract Mining

These alternatives were assessed to determine the preferred mining option.

In both cases the NPV's were similar with only a 6.0% variance when comparing deterministic outputs and a 6.6% variance when comparing probabilistic means. The internal rate of return however was significantly different with a 30% variance between the owner operator and



contract mining options. The significantly higher IRR for the contract mining option is due to the reduced capital required.

The contract mining option is also preferable from a workforce management and MRC's internal skill base perspective. MRC does not have the requisite experience in Australia to ensure smooth mining operations.

Further, given the probable maximum annual material movement it is likely to be less than 3Mtpa, the use of contract mining is preferred as the overall equipment hours that will be gained over the current life of mine are not large enough to maximise the capital investment required to become an owner operator.

Given these issues and variances it was determined to make the contract mining option the base case.

Alternative 4 – In-Pit Tailings Disposal

This option was assessed to determine the impact of pre-mining a small satellite pit to then be used for storing slimes (+/- additional conventional tailings and water) from the process plant.

This option showed that the impact to NPV was not material as the additional up-front mining cost was offset by the reduced TSF construction costs (additional raises). It is suggested that the additional advantages of rehabilitation, improved safety of the proposed TSF due to removal of fines, additional water management capability and likely support from regulatory agencies provide for a compelling option.

The Mining Proposal will be developed for permitting of the TSF for storage of all the estimated tailings so as to not require an amendment should in-pit disposal have any issues. The concept of in-pit disposal will be discussed with the regulatory bodies, so they are aware of MRC pursuing this option. Permitting for in-pit disposal does not require significant studies unlike a conventional TSF, those studies mainly being water control assessments.

It is suggested that Halberts South be specifically assessed for in-pit tailings disposal as it is close to planned infrastructure and is least likely to have extensions to mineralisation that significantly alter the current pit design. The pit is bounded to the south by the Mining Lease and already has a natural "land bridge" to the north between the "southern" and "northern" sections of the Halberts South pit.

Probabilistic Evaluation Summary:

A probabilistic analysis of all alternatives modelled was undertaken. This was done using @Risk software. The output from the base case (400ktpa, Contract Mining option) is presented below. In all simulations the NPV is positive. The curve is slightly skewed to the upside due to the expectation that there is a higher probability that the AUD:USD exchange rate will decrease from a 0.75 average than increase.



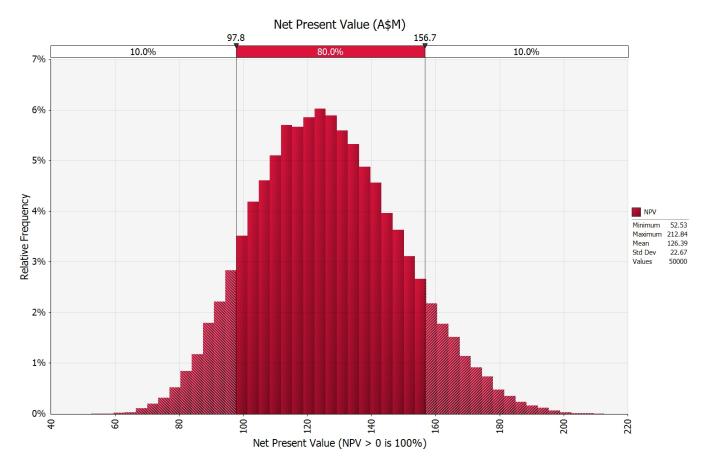


Figure 20 - NPV results from a Monty Carlo simulation undertaken on the base case

Sensitivities:

Sensitivities were done on the base case and the results presented below. As expected, exchange rate, recovery and commodity pricing comprise the key project sensitivities.



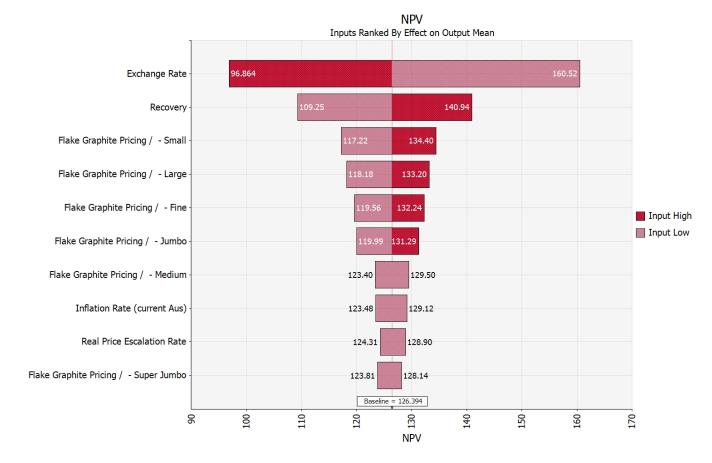


Figure 21 – Summary tornado diagram showing sensitivities of the base case

Deterministic Cases:

Low, Mid and High deterministic investment cases comprised of fully integrated, reasonable, plausible and internally consistent combinations of key input parameters.

NPV AU\$M (IRR%)	Graphite Concentrate Basket Price				
Investment Case	Low (US\$833) Mid (US\$989) High (US\$1,113)				
Low Case	A\$67M (26%)	A\$113M (41%)	A\$149M (51%)		
Mid Case	A\$90M (33%)	A\$139M (48%)	A\$178M (60%)		
High Case	A\$96M (37%)	A\$146M (53%)	A\$185M (65%)		

Table 7 – Summary of NPV and IRR for the deterministic cases run on the 400ktpa Contract Mining case

Graphite Pricing was ranged from a Low case of US\$833/t to a High case of US\$1,113/t. The Low pricing case uses the Benchmark Minerals Intelligence October 2017 +94% TGC pricing data. This is considered appropriate as the lower concentrate grade removes the purity premium and average pricing in October was the lowest seen with respect to the projected Munglinup basket pricing since mid-2016. The Mid pricing case is the February 2018 pricing obtained from both Benchmark Minerals Intelligence and Roskill. The High pricing case used is an average 12.5% increase on the Mid pricing case.



Case development looked at only four inputs, being exchange rate, recovery, mining cost and capital cost. These inputs, along with graphite pricing comprised those inputs the project is most sensitive to, excluding discount and inflation rates.

The High case assumed a slight increase in recovery and decrease in capital cost. The Mid case is wholly based on the mid input parameters. The Low case assumes a rise in exchange rate to 0.8 and a loss in recovery to 84%. Mining and capital costs have been maintained at the Mid case level. As seen, pricing and exchange rate account for the majority of the variance in estimated deterministic project outcomes.

		Low	Mid	High
ase	Exchange Rate	0.8	0.75	0.7
Ca	Recovery	84%	86%	87%
igh	Mining Cost	110%	100%	90%
I	Capital Cost	110%	100%	90%

		Low	Mid	High
e	Exchange Rate	0.8	0.75	0.7
Case	Recovery	84%	86%	87%
Jid	Mining Cost	110%	100%	90%
2	Capital Cost	110%	100%	90%

		Low	Mid	High
ė	Exchange Rate	0.8	0.75	0.7
Case	Recovery	84%	86%	87%
ě	Mining Cost	110%	100%	90%
Ľ	Capital Cost	110%	100%	90%

Table 8 – Summary of inputs to the various deterministic cases assessed on the 400ktpa Contract Mining Case

Other Alternatives Considered:

Other alternatives considered were siting the process plant at the Ravensthorpe Mine 42 kilometers towards Ravensthorpe Township and constructing a 1/3 scale demonstration plant prior to expanding to full capacity and commissioning in year 3.

Other Alternative 1 – Process Plant at Ravensthorpe Nickel Mine

Locating the plant at Ravensthorpe Mine has the advantage of an already permitted site, TSF and power. The disadvantage is the requirement to transport 400ktpa from Munglinup to Ravensthorpe. The following matters were considered:

- Permitting does not really provide any benefit to the project as the mine requires permitting irrelevant of the location of the processing plant.
- It is reasonable to assume that First Quantum Minerals (FQM) will require rental for any land used at Ravensthorpe.
- The TSF is a benefit and could potentially save significant capital. It is doubtful that
 operating costs could be reduced as it is certain that a fee would apply for using
 Ravensthorpe TSF capacity.
- Power, like the TSF will likely save capital however operating costs are likely to be the same at best and possibly higher.

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• The additional cost of hauling material will be in the order of \$3.50/t or \$1.4 million per year.

Considering these issues, it is likely that processing at Ravensthorpe will at best be an economically neutral option. It will in all likelihood prove to be a costlier option and will not necessarily accelerate project development.

FQM was contacted to assess their appetite for such an arrangement. Feedback thus far has not been encouraging and it is highly likely that they will not entertain such an option when fully presented. With this in mind, the Ravensthorpe option was not progressed any further.

Other Alternative 2 – 1/3 Demonstration Plant followed by Expansion

The second other alternative considered was the construction of a demonstration plant at 1/3 scale and subsequent expansion to 400ktpa in year 3. This was proposed as it would have the benefit of confirming the flowsheet or making the necessary adjustments prior to a full-scale plant, come under research and development, and provide time for Munglinup graphite concentrate to be qualified for use in lithium-ion batteries.

The issue with this option and its ensuing discounting as an option is that during the qualification period the remaining concentrate must be sold into other markets. There is no point to restricting production during this period of qualification as all concentrate can be sold into non LiB markets until such time as the Munglinup graphite concentrate is qualified for the battery market.

Investment Evaluation Issues:

The valuation date of the PFS is the 30th April 2018. The following assumptions have been made:

- Metallurgical testwork will be completed and process design to a standard to allow tendering of the project by July 2018.
- The Mining Proposal and associated documentation will be submitted to the regulatory authorities as required by August 2018.
- All necessary permits and approvals will be in place by December 2018.
- The project will be referred to the EPA and EPBC, and no formal review will be required.
- Front End Engineering and Design (FEED) will be completed by December 2018 to a standard that allows for commencement of construction.
- No significant long lead equipment will be required, and any that is required will be ordered once identified and confirmed during FEED.
- Construction will be completed in 9 months with commissioning in Q4, 2019.
- Financing will be in place by November 2018.
- If mining is to be undertaken by a contractor, a mining contract will be in place by December 2018.
- A mining joint venture agreement with Gold Terrace will be in place by November 2018.
- Sales contracts and offtake agreements will be in place by July 2019.

The discount rate used in the financial model is 8%. This is reasonable given the location of the project and comparison to other projects in Western Australia. Estimating the Weighted Average Cost of Capital (WACC) based on 50% debt funding, a nominal cost of equity of 10% and nominal cost of debt at 8%, results in a discount rate of 7.8%.



The inflation rate used in the model is the current Australian inflation rate of 1.8%. Where required prices and costs have been escalated by real price escalation rate of 1% and real cost escalation rate of 1.25%.

All costs in the financial models are real.

KEY CONTRIBUTORS TO PRE-FEASIBILITY STUDY:

In preparation of this study, MRC has relied on a number of external advisors and consultants for input, advice, support and assessment of study outcomes. A large number of specialist sub-contractors and consultants have been engaged to undertake specific environmental studies including flora, fauna, aquatics, stygofauna, short range endemics and other specific environmental assessment requirements.

Provider	Input
ALS Metallurgy	Metallurgical testwork
Australian Environmental and	Mineral Resource model and Resource Competent
Mining Company (AEMCO)	Person (CP), drill program management, geology
Battery Limits	Independent engineer and metallurgical consultant, metallurgy CP
Bis	Concentrate logistics and handling
Dajolin Mine Management Services	Environmental and regulatory owners representative
Esperance Tjaltjraak Native Title Aboriginal Corporation	Aboriginal Heritage Survey
Hastings Bell Pty Ltd	Study management, Mine design, schedule and optimisation, Ore Reserve and Reserve CP
Independent Energy Services	Power cost estimates
Integrate Suptainability Pty Ltd	Environmental studies management, soils
Integrate Sustainability Pty Ltd	characterisation, regulatory liaison
Klohn Crippen Berger	Tailings management and storage facility design
Mine Site Construction Services	Contract Mining cost estimation and fleet requirements
Rockwater	Hydrology and hydrogeology studies

Table 9 - Summary of key external consultants contributing to the Munglinup PFS

WORK PLAN FOR FEASIBILITY STUDY:

The Feasibility Study has already commenced with respect to the tailings storage facility and environmental studies. These elements of the FS will be finalised in July 2018 to allow for submission of the Mining Proposal, required for permits and approvals.

Other aspects of the FS including metallurgy, geology, mine planning and process engineering will continue with the FS scheduled for completion in November 2018, in line with granting of the required permits and approvals.

Key activities for delivery of the FS include:

finalisation of all environmental studies



- hydrogeology and hydrology studies
- · updated geological model
- updated pit slope parameter set and geotechnical model
- re-optimisation of pit shells
- updated final pit designs
- mining simulation equipment selection / contract mining tender
- final tailings storage facility design
- infrastructure locations sterilisation drilling
- completion of metallurgical variability testwork
- OEM testwork (filters, etc.)
- finalisation of the process flow sheet, preliminary design, equipment list and mass balances
- awarding of engineering and construction contractor
- front end engineering and design
- completion of power and logistics studies

The environmental studies, TSF design, geotechnical analysis and metallurgical variability testwork have already been awarded and capital expenditure requests approved.

Key decision points during the FS include:

- lock down of process flow sheet and overall plant design
- close off of geological database for final optimisation and pit design
- final location for infrastructure upon completion of sterilisation drilling
- use of satellite pit for tailings disposal
- awarding of engineering and construction contract to enable FEED prior to FS completion
- award of contract mining contract assuming contract mining option is undertaken

One of the key strategic choices to be made during FS is the use of a satellite pit for tailings disposal. Should this option be exercised the pit in question will have to be pre-mined prior to commissioning of the process plant.



Munglinup (JORC Code, 2012 Edition – Table 1 report)

Section 1 Sampling Techniques and Data

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

Criteria	Commentary
Sampling techniques	 The current resource database consists of 161 air core holes and 38 diamond holes representing 6,612m of drilling and 2,738 analysed drill samples. Air core (undertaken by Graphite Australia) ore zone intervals were sampled every meter using a scoop spear and the material bagged and numbered. Waste was not sampled except for a small buffer either side of the mineralisation. Diamond drilling (undertaken by Graphite Australia) ore zone intervals were sampled every meter except for ore boundaries where a longer or shorter interval was taken. Waste was not sampled except for a small buffer either side of the mineralisation.
Drilling	Diamond drilling was done using HQ triple tube.
techniques	 The mineralisation occurs from surface and drilling was done to a maximum of 61.1m depth.
Drill sample recovery	 No continuous data was recorded on core or chip recovery. Only poor sample quality and recovery was recorded for air core. Due to the style of the deposit it is considered that any material loss is not significant to the estimation of mineralisation.
Logging	 The current resource database consists of 161 air core holes and 38 diamond holes representing 6604m of drilling that were initially logged by on-site geologists. Diamond core was relogged and resampled in 2016. The data and results obtained from the 2012-2013 (Graphite Australia) drilling campaign were compared with the new logging and lab results from 2016 (AEMCO) as well as the historical logging and grades from the 1986 diamond holes by Sons of Gwalia. The two datasets were correlated to an acceptable level. A comprehensive logging system was developed and included alteration (type, style and intensity), grain size, rock type / lithology, colour, minerals, textures, fabric, parent rock (where fresh), sedimentary setting and, graphite class and grade. Geotechnical aspects in the form of RQD parameters were also recorded for the diamond core as well as specific structures and details in this regard, e.g. alpha angles.
Sub-sampling techniques and sample preparation	 Air core was sampled using a scoop spear. Diamond core was cut by a diamond impregnated blade core saw and half core sampled. Re-sampling of the remaining core in 2016 for data validation purposes (422 core samples including 26 duplicates and 19 repeat samples) used quarter core. Duplicates (quarter core) were taken every 20 meters during the Graphite Australia drilling program.
Quality of assay data and laboratory tests	 Standards were inserted every 20 meters. No blanks were used in addition to normal laboratory QAQC protocols. Sample analysis was undertaken by Nagrom in Perth for the Graphite Australia samples. The graphite content are reported as Total Graphitic Carbon (TGC). Prepared samples are dissolved in HCl over heat until all carbonate material is removed. The residue is then heated to drive off organic content. The final residue is combusted in oxygen with a Carbon-Sulphur Analyser and analysed for Total Graphitic Carbon (TGC). Sample analysis was undertaken by Analabs in Perth for the Gwalia Minerals NL samples. Two methods were used. Fixed carbon (>40%C) – C graphite is determined as an expression of fixed carbon

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Criteria	Commentary
	 which is calculated by subtracting the sum of the percentages of moisture in the sample, volatile matter and ash from 100 (BS1016 methodology) Fixed carbon (<40%C) - the sample is washed with organic solvents, filtered and washed with NaOH solution, the sample is then attacked with hot 1:1 HCL to remove carbonates, washed and dried at 105°C, the residue is analysed for carbon by converting the carbon to CO2 in a Leco furnace and measuring by infra-red. Eleven check samples (pulps) from Analabs were sent to Classic Laboratories for cross checks. Classic Laboratories washed the samples with dilute HCL to remove carbonates, ash at 450°C to remove organic carbon and assay by Leco furnace for the remaining fixed carbon / C graphite. Check assays (>10% fixed carbon) were all within ±10% of the original Analabs assay. Analabs assays within the range 5% -10% fixed carbon were approximately 15% lower than Classics check assays.
Verification of sampling and assaying	 Four twin holes were drilled by Graphite Australia near (8-14m) the historical diamond holes by Sons of Gwalia. The database containing drilling data and results was provided by Graphite Australia. A review of the data was done by the project field geologist Mr. Luke Forti and the accuracy of the data was discussed with him during a number of meetings with AEMCO during 2015. Confirmation on the integrity and accuracy of the data was provided. A visual review of the diamond core was then done by AEMCO in 2016 to confirm the historical logging by Graphite Australia. Any outstanding information was recovered from the diamond core and updated geological logs were created. Diamond core was relogged and resampled in 2016. 422 core samples were reanalysed by Nagrom during April 2016, including 26 duplicate and 19 repeat samples to confirm grade results. GGC01, GGC08 & GGC09 standards were used. The data and results obtained from the 2012-2013 (Graphite Australia) drilling campaign were compared with the new logging and lab results from 2016 (AEMCO) as well as the historical logging and grades from the 1986 diamond holes by Sons of Gwalia. Any discrepancies or errors were either corrected or the results rejected.
Location of data points	 All exploration drillhole collars were re-surveyed to 0.05m accuracy by Esperance Surveys in July 2016. In total 90% (179 holes) were re-surveyed to confirm location integrity. Average variation from the original field survey in all directions was less than 2m. Air core holes were down hole surveyed at the end of the hole only. Diamond drill holes were surveyed at 30m depth and the end of hole. Local grids were established at each of the prospects then later converted to GDA94. Hole collars were originally surveyed by GPS only.
Data spacing and distribution	 Drill spacing: Halberts Main Zone: (Drill Grid 50 x 20m). Halberts South Zone: (Drill Grid 40 x 20 & 40 x 10 infill) Harris Area: (Drill Grid 40 x 20m) McCarthy West Area: (Drill Grid 40 x 20) McCarthy East (Wright) Area: (Drill Grid 40 x 10)
Orientation of data in relation to geological structure	 The deposits were drilled at approximately -60° to intersect the mineralised zoned approximately orthogonal to the interpreted dip and strike of the geological units. The interpreted mineralised zones correlated extremely well with historical interpretations done by Sons of Gwalia in the 1980's and 1990's and high degree of confidence in the orientation and zoning of the graphite mineralisation is noted.
Sample security	 Graphite Australia followed a disciplined QA/QC process as is evident from their database and chain of command documents. AEMCO followed the same procedure and personally took all resampled material to Nagrom and recovered the processed sample material for storage with the remaining core and air core samples at a secured location in Welshpool, WA.



Criteria	Commentary
Audits or reviews	 An audit was conducted by Coffey Mining Pty Ltd in 2011 prior to the additional drilling undertaken by Graphite Australia. The review stated; "Resources and reserves are assessed to be non-JORC compliant, given the age and the lack of available core. However, given the level of documentation provided, and the extent to which an auditable trail exists in relation to the modelled resources and reserves, the metrics presented are credible and serve as basis for project decision making." The 2012-2013 exploration work done by Graphite Australia was reviewed and completed by AEMCO in 2015 and 2016 and from this review a maiden JORC 2012 resource was determined.

Section 2 Reporting of Exploration Results

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

Criteria	Commentary
Mineral tenement and land tenure status Exploration done by other parties	 The tenements (M74/75 & E74/505) are situated on the Ravensthorpe SI 51-5 and North-Over 3031, 1:250,000 and 1:100,000 geological sheets respectively. Mining Lease 74/245 was granted on 26 August 2010 for a term of 21 years. The Lease is 685 hectares in area. Exploration License 74/505 of 2 block size was granted on 23 October 2012 for a period of 5 years. Gold Terrace Pty Ltd are the current registered owners of the Munglinup Mining Lease (M74/245) and Exploration License E74/505. There is a caveat on the tenements relating to a 2% gross royalty liability with Adelaide Prospecting as the beneficiary. The fully granted mining lease is valid to August 2031. The tenements are located in a fully gazetted mining reserve, with no native title or private land ownership issues. Metals Exploration NL – (1971-1972) Norseman Gold Mines – (1979-1980) Pioneer Concrete – (1985-1986) Gwalia Minerals NL – (1988 – 1989)
	 Sons of Gwalia – Gwalia Minerals: Feasibility Studies – (1989 to 1991) Adelaide Prospecting – (2007-2010) Graphite Australia (2010-2013) Gold Terrace (2014–2016)
Geology	 The Munglinup area comprises Archean to Paleoproterozoic, metamorphosed granitic and other metamorphic rocks of the Albany–Fraser Orogen, typically hornblende (± garnet) gneiss and migmatite. Within the gneissic rock mass, rocks containing the Munglinup graphite deposits consist of a succession of tightly folded metasedimentary rocks with a consistent dip to the southeast. The classification scheme most widely accepted for graphite deposits was introduced by Cameron (1960). It classifies known graphite deposits into five categories reflecting the different types of graphite. Using this classification scheme, it is most likely that the Munglinup deposit can be characterised as a type 1, disseminated flake graphite in silica-rich meta-sediments deposit.



Criteria	Commentary
Drill hole Information	This information is included in the drill hole collar tables below.
Data aggregation methods	 No cut-off grades were applied to exploration data. See detail regarding resource assessment.
Relationship between mineralisation widths and intercept lengths	 Inclined air core and diamond drilling (HQ3) was done to try and intersect the different graphite zones as close to true width as possible. Average dip angle was 60°.
Diagrams	Drill hole collar location plans and sections given below.
Balanced reporting	See results from the Resource Assessment (section 3 of Table 1)
Other substantive exploration data	See results from the Resource Assessment (section 3 of Table 1)
Further work	To be announced to the market in the near future.

Section 3 Reporting of Mineral Resources

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

Criteria	Commentary
Database integrity	 The database containing drilling data and results was provided by Graphite Australia. A review of the data was done by the project field geologist Mr. Luke Forti and the accuracy of the data was discussed with him during a number of meetings with AEMCO during 2015. Confirmation on the integrity and accuracy of the data was provided. A visual review of the diamond core was then done by AEMCO in 2016 to confirm the historical logging by Graphite Australia. Any outstanding information was recovered from the diamond core and updated geological logs were created. Diamond core was relogged and resampled in 2016. 422 core samples were re-analysed by Nagrom during April 2016, including 26 duplicate and 19 repeat samples to confirm grade results. GGC01, GGC08 & GGC09 standards were used. The data and results obtained from the 2012-2013 (Graphite Australia) drilling campaign were compared with the new logging and lab results from 2016 (AEMCO) as well as the historical logging and grades from the 1986 diamond holes by Sons of Gwalia. Any discrepancies or errors were either corrected or the results rejected. Four twin holes were drilled by Graphite Australia near (8-14m) the historical diamond holes by Sons of Gwalia. The current resource database consists of 161 air core holes and 38 diamond holes representing 6,612m of drilling and 2,738 analysed drill samples.
	 All exploration drillhole collars were re-surveyed to 0.05m accuracy by Esperance Surveys in July 2016. In total 90% (179 holes) were re-surveyed to confirm location integrity. Average variation from the original field survey in all directions was less than 2m.



Criteria	Commentary
Site visits	 No site visit was undertaken as all drilling, survey work and site rehabilitation had been completed before this resource assessment started. All recent drill samples, core samples and bulk samples have been removed to an industrial site in Welshpool and this material was inspected and reviewed by the CP.
Geological interpretation	 The determined measured and indicated resource of 1.6 million tonnes @ 18.7% TGC at the Halberts Main Zone compares favourable with the historical reported measured resource grade of 1.467 million tonnes @ 18.2% and the produced product grade of 19%. The confidence in the current geological interpretation is therefore considered to be good. Assay data has been used to generate mineralisation domains. Unsampled intervals were classified as waste and any graphite mineralisation less than 1m in thickness outside mineralised domains was ignored. Internal waste material less than 1m was ignored. The geology, strike and dip of the deposit is well understood and is tabular in geometry with sub parallel gneissic units. As graphite content is found within highly weathered lithological zones described as either a schist or gneiss and the host rock is within a para- and orthogneiss, modelling of a lithological model were problematic as the mineralised zone contact is not always distinct. It was therefore decided to only model zones with proven graphite content – a mineral composite grade model – not a lithological model. The mineralised domains were interpolated using the local strike and dip of their host lithologies. These mineralised domains reflect their host schist lithologies to a very large degree. The graphite rich zones were modelled according to 4 grade zones – Low (1 to 5% TGC); Medium (>5 and ≤10% TGC); Medium to High (>10 and ≤15% TGC) and High grade zone (>15% TGC). Resource grade interpolations was limited to a search radius length equal to at least the nearest fence drill line as follows: Halberts South Zone: Indicated Resource 50m SR (Drill Grid 40 x 20) McCarthy West Area: Indicated Resource 50m SR (Drill Grid 40 x 20) McCarthy West Area: Indicated Resource 50m SR (Drill Grid 40 x 20) McCarthy East Area: Indicated Resource 50m SR (Drill Grid 40 x 20) Total Graphite Content grade was modelled using Leapfrog
Dimensions	 The mineralised zones consist of numerous thin (2-20m wide) steeply dipping folded zones reflecting a cover nappe system with late stage granite and pegmatite intrusions.



Criteria	Commentary
	 Halberts Main Zone: Length: 730m Width: 90-130m Depth: surface to -90m Halberts South Zone: Length: 560m Width: 20-50m Depth: surface to -60m Harris Area: Length: 435m Width: 30-70m Depth: surface to -35m McCarthy West Area: Length: 290m Width: 100-110m Depth: surface to -55m McCarthy East Area: Length: 260m Width: 12-20m Depth: surface to -30m
Estimation and modelling techniques	 A conservative approach was taken during the resource modelling. Leapfrog Geo version 3.1 was used to model the resource. A composite grade geological model was created for each deposit. The mean grade for each zone was then determined for each model. The model parameters for each of the five deposits were based on site specific aspects. The search radius for the grade model was limited to the nearest adjacent fence drill line as previously reported. No extrapolation of results was allowed outside the search radius. The search ellipse was weighted and oriented according to the structural trend (dip and dip direction and plunge) of the host lithological formation as follows: Halberts Main Zone: Dip: 45° Dip Azimuth: 77° Pitch: 0.2° Halberts South Zone: Dip: 38° Dip Azimuth: 60° Pitch: 0.2° Harris Area: Dip: 37° Dip Azimuth: 143° Pitch: 0.1° McCarthy West Area: Dip: 45° Dip Azimuth: 160° Pitch: 0° McCarthy East Area: Dip: 45° Dip Azimuth: 160° Pitch: 0° McCarthy East Area: Dip: 45° Dip Azimuth: 137° Pitch: 0° The resource boundaries were limited to the search radius from the last point



Criteria	Commentary
	 of intersections and against the surface topography. 3D Wireframes volumes/isosurfaces has been snapped precisely to drill results. Validation of the statistical drill results data and historical reported grades compared very favourably with the determined resource grade of 18.2% TGC and historical mine production grades of 19% TGC. There appears to be a correlation between pegmatite intrusions and higher grade graphite zones, but the correlation cannot be proven. The current resource is declared at a cut-off grade of 10% as the industry standard median grade for commercial graphite mine development is considered to be approximately 9-10% TGC. This gives a total resource of 3.624 million tonnes @ 15.3 TGC. If a cut-off grade 5% is used the total resource increases to 6.026 million tonnes @ 11.0% TGC.
Moisture	The resource tonnages are based on a dry basis at a Bulk Density of 1.91.
Cut-off parameters	 The current reported resource was declared at a cut-off grade of 10% as the industry standard median grade for commercial graphite mine development is considered to be approximately 9-10% TGC.
Mining factors or assumptions	 Mining of the deposit will be by open pit surface mining methods involving standard truck and haul mining techniques. No assumptions on mining methodology have been made.
Metallurgical factors or assumptions	 Extensive metallurgical testing has been done on the deposit which include the following studies: Amdel (for Picon) – 1986 Leach and Flotation test work – Chemistry Centre – 1990 Settling Tests – Chemistry Centre – 1991 Flotation Tests – Chemistry Centre – 1991 Screening Test – Chemistry Centre - 1992 Coffey Mining - 2011 Metallurgical study – TF Brittliffe – 2011 Nagrom tests 2011-2016 and Petrographical studies by Roger Townend and Associates Battery Limits supervised testwork at ALS Metallurgy labs in Perth – 2018 See Section 4 for more detail
Bulk density	 The bulk density is based on historical density calculation for the material at 1.91 g/cm3 The host geology comprises weathered metamorphic material. Visual inspection of core indicates little loss of material due to vugs or discontinuities. All material within the mineralisation domains were assumed to be schist for the purpose of assigning density values.
Classification	 The original 1989 resource classification was an indicated and measured resource based on 1989 JORC criteria including diamond drilling, trenching, bulk sampling, exploration & mine shafts and bulk mining. Since that time an additional 161 air core holes and 22 new diamond holes



0.11.1.	
Criteria	Commentary
	 representing 5,883m of drilling and 2,615 analysed drill samples were added to the resource database. The input data is comprehensive in its coverage of the known areas of mineralisation and mineralisation remains open along strike and depth. A review of the drill data, lab results, continuity of the mineralisation and the drill spacing allowed the current resource to be classified as indicated and measured. A conservative modelling approach was used to be able to classify part of the Halberts Main Zone into measured with an interpolation search radius limited to 50m on a 50 x 20m drill grid. No extrapolation of the resource was done past this distance. No mineralisation with intersections less than 1m was used in the resource determination and all waste or unsampled zones thicker than 1m was classified to be located outside the mineralised zone. The model is not considered to favour or misrepresent in-situ mineralisation and reflects the current and historical interpretation of the ore body. The Mineral Resource estimate appropriately reflects the view of the Competent Person.
Audits or reviews	 This is the maiden mineral resource estimate under JORC 2012. No formal review or audit of the Mineral Resource model has been completed. A review and update of the model is currently being undertaken by Manna Hill Geoconsultants.
Discussion of relative accuracy/confidence	 The Munglinup graphite deposit has been mapped, drilled, mined and investigated numerous times over the past 100 years. The high grade nature of the resource and its potential is well documented. The structural complexity and difficulty in lithological identification within the weathered zone has always made modelling using a standard lithological model difficult. Using implicit modeling methods as provided by Leapfrog software and the creation of a composite lithological grade model helped to overcome some of these difficulties. A statistical analysis of all the mineralised (carrying graphite) drill data indicates the following: 27.45% of intersections is above 15% having a median grade of 19.57% TGC 38.45% of intersections is above 10% having a median grade of 14.64% TGC 54.67% of intersections is above 5% having a median grade of 11.19% The statistical grade data correlates extremely well with the Halberts Main Zone modeled resource grade of 14.6% using a cut-off grade of 10%. The current data quality, drill hole spacing and the interpreted continuity of grades and continuity at surface outcrop have allowed AEMCO to classify the Halberts Main Zone resource into Measured and Indicated category and all the other deposits into Indicated. The resource estimate compares favourably with historical production grades of 19%.



Section 4 Reporting of Ore Reserves

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

Criteria	Commentary
Mineral Resource estimate for conversion to Ore Reserves	 The Mineral Resource as previously reported by MRC (11th September 2017) was provided by AEMCO. Mr. Adriaan du Toit is the Mineral Resources Competent Person for the purposes of the Mineral Resource Estimate as defined and in accordance with the JORC Code 2012. The Resource Model is an implicit Leapfrog Model which was regularised and exported from Leapfrog. Block sizes of 10m x 10m x 8m and 5m x 5m x 4m were assessed for appropriateness and similarity to the reported Mineral Resource. The 5m x 5m x 4m exported block model was used for optimisation and mine planning purposes. The Mineral Resources are reported inclusive of the Ore Reserve.
Site visits	 Site visits were undertaken on the 19th October 2017, 22nd February 2018 and 1st March 2018. The nearby Towns of Ravensthorpe and Esperance were also visited to assess regional infrastructure and support capabilities. Historical core from the site was also examined by the CP prior to the site visit. Surface mineralisation was examined along with locating of previous drill collars. Access and exploration of possible mining issues were assessed along with a general geographic overview of the area.
Study status	 This study is assessed as being at a Pre-Feasibility Level. Historical study work on the Munglinup Deposit is extensive. Gwalia undertook a full Feasibility Study in the late 1980's / early 1990's however the rigor of this study is questionable. Certain inputs to the current PFS have been derived from the previous FS where it was deemed appropriate and confidence exists in the data. A large amount of metallurgical testwork has been done previously however that work produced a relatively low grade (rougher flotation or first stage cleaner flotation) concentrate which required significant and complex upgrading via leaching. This was considered to be impractical from capital cost and environmental perspectives. A more comprehensive metallurgical test work program was undertaken on a representative master composite using the current, multi-stage regrind and flotation practice. This program produces a high grade flotation concentrate at good recoveries. This testwork is now continuing with variability samples and a bulk metallurgical sample to provide higher confidence in the process engineering and produce a marketing and downstream testwork concentrate sample. At present the process plant capital cost is estimated at +/- 35% however the confidence in the process flow sheet is much higher and as such is deemed reasonable to be used as the process input for the PFS. Detailed studies and design criteria, testwork and design has been completed by KCB consultants on the tailings storage facility to estimate costs and schedule to +/- 25%. This major component of the study is considered to be acceptable for inclusion in the PFS. Significant ongoing environmental studies and surveys are at various levels of completion as required for the Mining Proposal and subsequent permitting and approvals require for operations. Reports to date show confidence in the granting of the required permits. The draft findings and reports are considered to be better than PFS level of confidence.



Criteria	Commentary
	presented.
Cut-off parameters	 A comprehensive Financial Model was constructed using inputs from previous studies, quotes obtained from potential contractors and suppliers, and benchmark data sourced from engineering firms. These inputs were then used to estimate a cashflow for each block based primarily on the estimated TGC %. The cashflow model was converted to a Python script and executed on the regularised block model in the General Mine Planning software ("GMP"). Blocks where the cashflow is positive are designated ore and negative blocks designated waste.
Mining factors or assumptions	 The Mineral Resource regularised block model was coded for cashflow and other items in the GMP (MineSight) and then exported to Whittle 4x for optimisation. The model was validated by a number of means including comparison to the reported Mineral Resource at each step to ensure the integrity of the model. The appropriate pit shell was selected along with any push backs (if required) and exported back to the GMP. Detailed pit design was then undertaken using the Gwalia FS geotechnical pit slope parameter set and general design criteria. The deposit is a small, oxidised, high grade Graphite deposit. The planned mining method is conventional open pit truck and shovel using small, 60t to 90t excavators (e.g. Komatsu PC600 or equivalent). The model assumes contract mining however owner operator cases were assessed. Mineralisation extends to surface so only limited pioneering and soil collection works are required. There is essentially no pre-strip. Likewise, the high-grade nature of the deposit results in it being relatively insensitive to strip ratio. Access to the area is straight forward with council maintained roads available to within 2 kilometers of the mining area. The topography is gently undulating rises and it is anticipated that no significant issues associated with mining are likely. Historical work included a systematic examination of drill core to assess the requirement for drill and blast during mining and to assess open pit stability. The examination was based largely on RQD parameters and concluded that drill/blast of the ore zone was unlikely to be necessary or desirable. Drill and blast of the west wall gneiss may however be required at depth. In terms of overall pit slopes, those chosen for Halberts Main Pit (the largest pit by far) are reasonably conservative by comparison with similar depth pits in oxidised rock elsewhere in Western Australia. The west wall (fotowall) which includes the haul ramp, slopes 38° overall, whereas the east wall is steeper at 45° ov



Criteria Commentary

Metallurgical factors or assumptions

- The metallurgical process proposed is a comprised of standard graphite flotation processing. Flotation is a standard processing method for graphite flake deposits.
- Flotation technology is well tested and understood.
- Significant previous metallurgical testwork has been undertaken. Early tests achieved an average of 85% C in con at 95% recovery, with rougher float followed by 5 stages of cleaning on mixed (un-sized) ore. Later tests focused just on rougher flotation in +300micron, and +150/-300micron size ranges. Excellent recoveries of +150micron material (~98%) at relatively low con grades (~60%C) was seen. Reasonable recoveries of +300micron material was seen at higher cons grades. These tests however left significant graphite in the oversize/undersize and artificially inflated the graphite grade in target size ranges to more than 30%.
- Overall, more than 20 specific metallurgical studies were undertaken on the Munglinup Graphite mineralisation, predominantly in the late 1980's and early 1990's. This testwork culminated in the release of a Feasibility Study by Gwalia Minerals in 1991.
- In 2011, Graphite Australia commissioned Nagrom to undertake various metallurgical tests on a 2t bulk sample sourced from a near surface part of the Halberts Main deposit. The sample included material from the three mineralisation types. As a result of this test work, a conceptual flow sheet was developed based on a beneficiation circuit with unit operations that are conventional and well proven in the industry. A circuit comprising feeder and trommel, desliming, classification, gravity, milling, flotation, drying, screening and bagging was considered. This formed the base case for this study. This flow sheet and historical data was reviewed by Battery Limits and deemed reasonable however further optimisation is possible and additional metallurgical testwork is being undertaken to address this.
- However, the sample has ultimately been deemed only partially representative as it does not include material from depth. Future metallurgical testwork undertaken in this study used a master composite derived from historical drilling core and that has been selected to provide high representivity of the deposit.
- No specific allowances have been made for deleterious elements. Any nongraphite material that reports to the graphite concentrate is deemed to be dilutionary in nature only and does not attract any specific penalties beyond the reduction in concentrate price based on the graphite concentrate purity as is standard in the industry.
- Both historical and recent work has been done on the mineralogy of the
 deposit. The latest petrographical study was conducted on 12 samples from
 drill core that are representative of the deposit. The petrographical nature of
 the graphite mineralisation at Munglinup is well understood and shows that
 the final product will be able to meet the required specifications
 mineralogically.
- The recent metallurgical testwork using the master composite has shown that concentrate grades of greater than 97% TGC is readily achievable and up to 98.7% possible across most flake sizes including the -100micron. Recovery is lower at an average of 86% which was used in the financial model.
- The flake size distribution used in the financial model was taken from metallurgical test BF1059 which was considered to be fairly representative of the flow sheet developed in the phase 1 metallurgical testwork. Work is yet to be undertaken to optimise the flow sheet for flake size distribution preservation and the distribution used is considered appropriate.





Criteria	Commentary
Costs	 Process plant capital costs have been compiled by Battery Limits based on a draft process flow sheet design, for the design, supply, fabrication, construction and commissioning of the process plant facility. The process design criteria and process flowsheet underlie the basis of the estimate. The estimate incorporates direct costs and indirect costs and also contains estimates for project infrastructure. The estimate has been prepared based upon supplied cost of equipment from current in-house data from recent projects and industry standard estimating factors and excludes working capital, sustaining capital, financing costs, relocation and resettlement costs, rehabilitation and closure costs. A project contingency allowance has been applied to the estimate. The capital cost estimates are in A\$ with a base date of Q2 2018 to a nominal accuracy of +/- 27.5%. An allowance of 1.5% was included for escalation in the updated financial model. A contingency of 15% was included in the capital cost estimate. EPC costs were estimated at 15%. Financial modelling of the project has been undertaken on a 100% equity funding basis. The mining operating cost was derived from contractor quotes. The processing operating cost estimate is based on an annual operating schedule of 24 hours per day, seven days per week with a milling operating time of 91%. An allowance for initial ramp-up periods has been applied. Industry standards, information from the operating cost database and information from the process design criteria underlie the basis of the processing cost estimate. The operating cost estimates are in A\$ with a base date of Q2 2018 to a nominal accuracy of +/-27.5%. An allowance of 1.5% was included for escalation and 1.8% for inflation in the updated financial model. Infrastructure, General and Administrative support, corporate overheads and marketing costs have also been estimated in the financial model. Transport charges were estimated based on discussions wi
Revenue factors	 Revenue from the project is derived from the sale of graphite concentrates. Previous testwork has produced significant test concentrate that has been assessed by various parties. It was established that the Munglinup concentrate, if produced to a minimum of 95% graphite in concentrate can expect to receive premium or near premium pricing levels. Concentrate flake size distribution has been assessed using data from recent testwork. Further optimisation is planned to preserve flake size however recent discussions with market experts suggest that certain specific properties of the Munglinup graphite concentrate may be more desirable by customers than flake size. Head grade delivered to the processing plant was derived from the underlying block model. An average recovery was used based on recent metallurgical testwork. Graphite pricing in the model is FOB. Testwork to date shows that there are no by-products, co-products or deleterious elements in the concentrate.
Market assessment	 The majority of current world demand for graphite (>80%) is driven by industrial applications (steel making, refractories and lubricants) that are growing at around 3% per annum. Within the industrial sector, lithium ion batteries represent a potential high growth area due to the impact of electric vehicles and grid power storage. Other new applications comprising



Criteria	Commentary
	 expandable graphite (flame retardant materials, graphite foil, graphite paper, knitted tape), and specialist applications (micronised graphite, and graphene) are leading to an increase in demand. The natural flake graphite market focused on batteries is fragmented and immature. China is the dominant supplier and likely the dominant battery end user at present. China produces 66% of the world's graphite supply. Approximately 70% of Chinese production is fine or amorphous graphite while 30% is flake. China does produce some large flake graphite, but the majority of its flake graphite production is very small in the +200 mesh range.
	 Standard product specifications comprise the total graphitic carbon grade which must generally exceed 90% to 94% TGC to be saleable and the distribution of flake size – with the minimum saleable specification generally being "Fine". Higher purity concentrates (>97% TGC) can attract significant premiums
	The Durchies Tours estimate is compared by a financial model that has

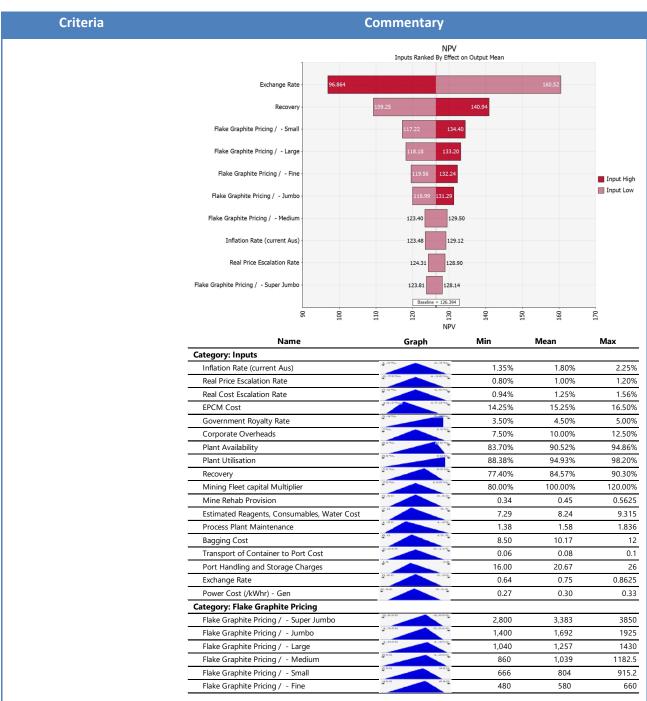
Economic

 The Production Target estimate is supported by a financial model that has been prepared to a Pre-Feasibility Study level. The model covers the current 9-year life of the Project. The key economic inputs comprise:

Financial Inputs	Value
Inflation Rate	1.8%
Escalation Rate	1.5%
Discount Rate	8.0%
Corporate Tax Rate	30.0%
State Royalty Rate	5.0%
APPL Royalty Rate	2.0%
Corporate Overheads	5.0%

- All major cost inputs have been supplied by contractors, suppliers and from databases held by independent engineering consultants.
- Sensitivity analysis undertaken on 24 input variables including; exchange rate, recovery, commodity price, and, various individual inputs to operating costs and capital costs.
- The base case NPV is A\$139 million and the following chart presents resultant NPV when the top 12 inputs with respect to impact are varied by appropriate amounts. Inputs used in the sensitivity analysis and simulations are given below along with the minimum, mean and maximum values.





Social

- ML74/245 is a mining lease in the Esperance area granted on 26 August 2010 for a term of 21 years, expiring on 25 August 2031.
- There are no plaints of other applications currently registered with respect to the tenement and no native title claims.
- The tenement is in a Mining Reserve specifically set aside from agricultural release. The surrounding land use is primarily farmland. Proximal to mining lease 74/245 are reserves set aside for timber, recreation, water supply, parklands (recreation) and rubbish disposal.
- A preliminary archaeological assessment of the area was undertaken in 1990
 after information from the Western Australian Museum showed that there are
 no known significant sites in the Mining Lease area. No aboriginal sites were
 found however areas within the Mining Lease, distal to the known
 mineralisation, were highlighted as potentially requiring additional detailed
 surveys should operations impact these areas in the future.
- A recent heritage survey conducted over the entire ML did not locate or identify any sites requiring protection or specific treatments. Two sites of



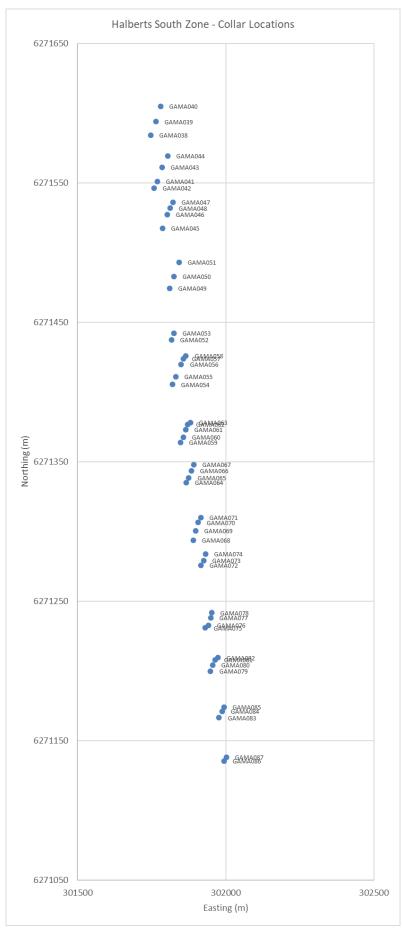
Criteria	Commentary
	significance were located within the ML but are distal to the mineralisation and planned infrastructure.
Other	 The Company will be required to submit a comprehensive Mining Proposal to the DMP/DMIRS for assessment of potential environmental impacts and the environmental management of a proposed mining operation. As there is a mining lease in place no economic evaluation or justification is required.
Classification	 Resources were classified in accordance with the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition). The current Mineral Resource classifies mineralisation at Halberts Main as both Measured and Indicated while all other areas are Indicated only. A review of the drill data, lab results, continuity of the mineralisation and the drill spacing allowed the current resource to be classified as Indicated and Measured. A conservative modelling approach was used to be able to classify part of the Halberts Main Zone into measured with an interpolation search radius limited to 50m on a 50 x 20m drill grid. No extrapolation of the resource were done past this distance. No mineralisation with intersections less than 1m were used in the resource determination and all waste or non-sampled zones thicker than 1m was classified to be located outside the mineralised zone. The Ore Reserve only utilised Measured and Indicated Mineral Resources and reconciles well with the reported Mineral Resource. No additional inferred material or exploration results of targets were used in the estimation of the Ore Reserve.
Audits or reviews	 Internal reviews of the optimisation and scheduling methodology, financial models, geotechnical inputs, marketing assumptions and other estimates have been done. An independent audit of core aspects of the Feasibility Study will be undertaken.
Discussion of relative accuracy/ confidence	 A degree of uncertainty is associated with the geological and Mineral Resource estimates and classification. The Ore Reserve also reflects the level of confidence in the Mineral Resources. The Mineral Resource model is an implicit model that has been translated to a conventional, regularised block model for optimisation and mine planning purposes. Any conversion of this type of a geological model will introduce minor inconsistencies due to the changes in estimation and reporting methodology. At all stages the model was reconciled back to the previous model to ensure any variability was understood and acceptable. The design, schedule and financial model on which the Ore Reserve is based has been completed to a Pre-Feasibility Study standard with a corresponding level of confidence (suggested +/- 27.5%). Further optimisation of sections of the process route and comprehensive variability test work is still ongoing. The current flow sheet is common for mineralisation of this type, proven and supported by significant test work. There is a degree of uncertainty regarding estimates of modifying mining factors, geotechnical and processing parameters that are of a confidence level reflected in the level of the study (PFS). The Competent Person is satisfied that a suitable margin exists and that the Ore Reserve estimate would remain economically viable with any negative impacts applied to these factors or parameters. There is a degree of uncertainty in the commodity price used, however, the Competent Person is satisfied that the assumptions used to determine the economic viability of the Ore Reserve are based on reasonable current data. The commodity prices used have been reviewed internally by the MRC Marketing Manager, Mr Sait Uysal, former Marketing Manager for Syrah Resources.



HOLE ID	ZONE	FROM (m)	TO (m)	INTERVAL	AVERAGE GRADE
		·,		(m)	TGC (%)
GAMA015	Halbert Main	38	45	7.0	34.91
GAMD013	Halbert Main	38.45	42	3.6	34.90
GAMD016	Halbert Main	24.94	34.94	10.0	34.25
GAMA008	Halbert Main	32	39	7.0	32.89
GAMA006	Halbert Main	25	37	12.0	32.37
GAMA090	Wright	10	17	7.0	30.13
GAMA148	McCarthy	41	42	1.0	30.00
GAMD013	Halbert Main	49.16	57.27	8.1	29.04
GAMA015	Halbert Main	29	45	16.0	28.59
GAMA009	Halbert Main	51	61	10.0	28.18
GAMD010	Halbert Main	29.55	37.8	8.3	27.69
GAMA149	McCarthy	45	51	6.0	27.23
GAMA092	Wright	16	23	7.0	26.66
GAMD014	Halbert Main	52.49	58.7	6.2	26.13
GAMA003	Halbert Main	13	30	17.0	24.32
GAMA005	Halbert Main	10	19	9.0	23.18
GAMA061	Halbert South	33	40	7.0	21.74

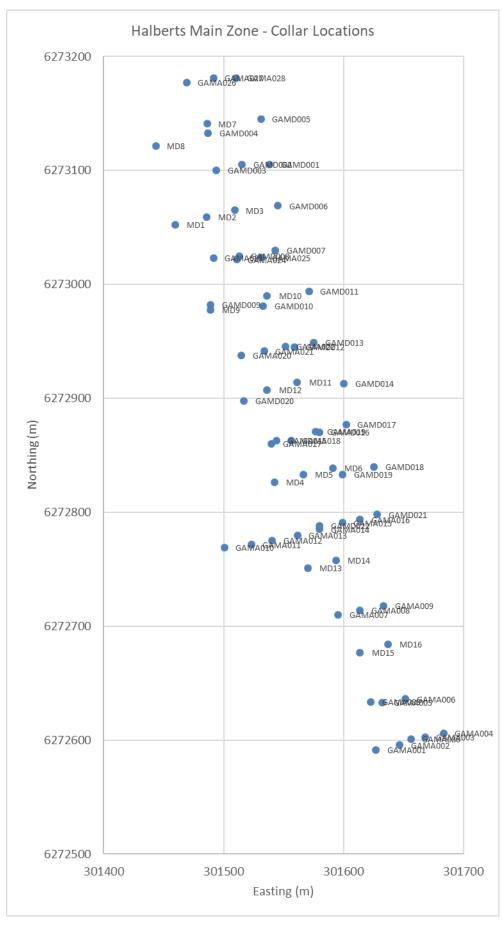
Selected High Grade Intercepts from various areas





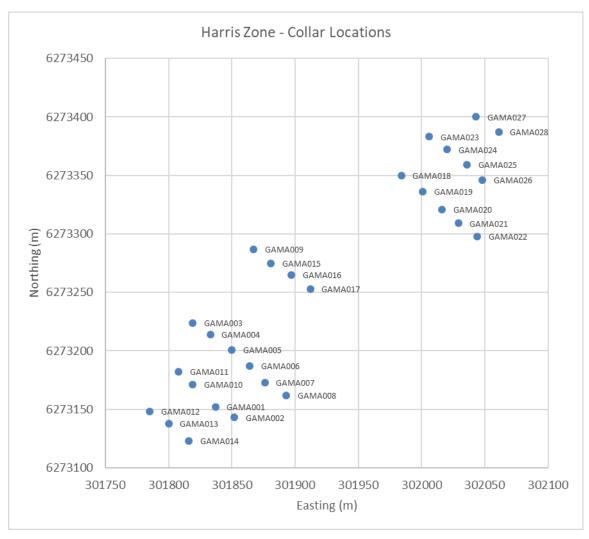
Drill Collar Locations for Halberts South Deposit





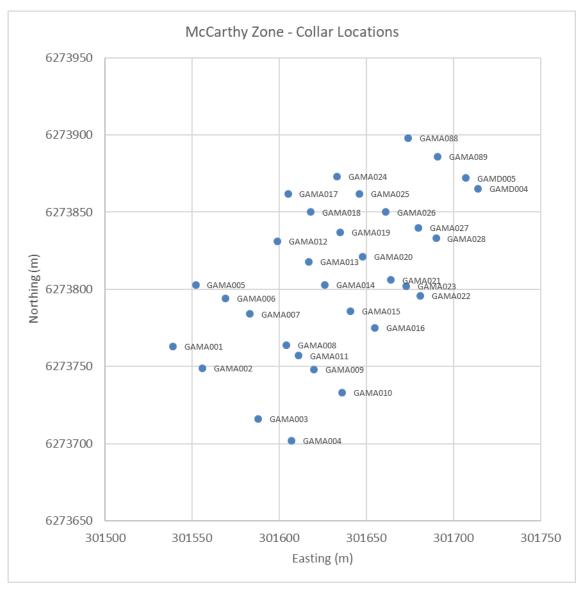
Drill Collar Locations for Halberts Main Deposit





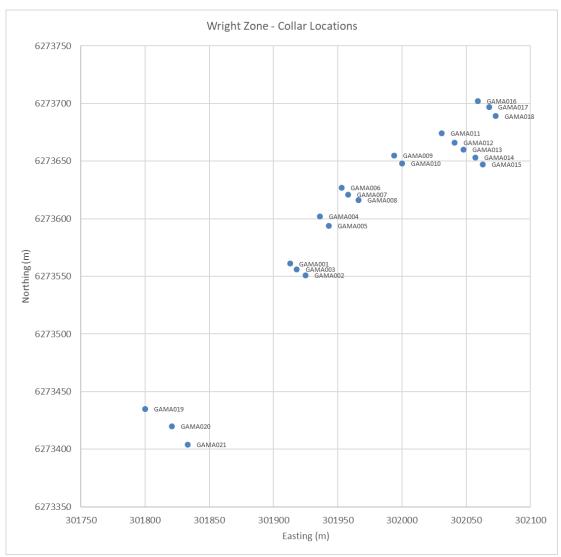
Drill Collar Locations for Harris Deposit





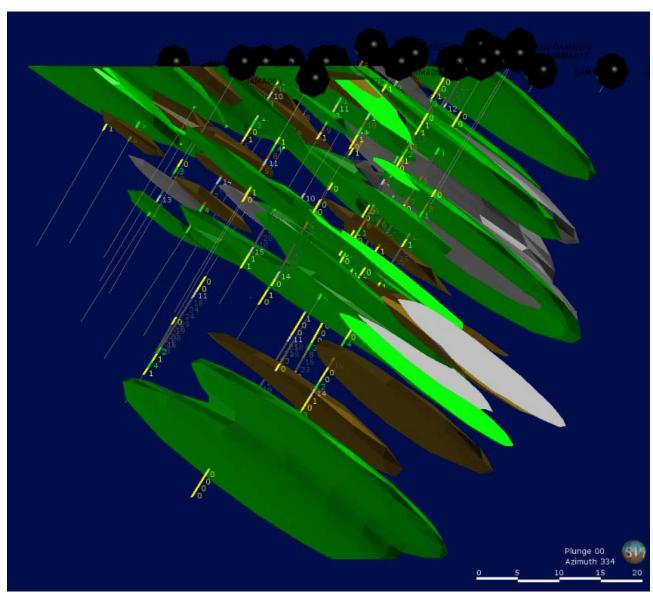
Drill Collar Locations for McCarthy West Deposit





Drill Collar Locations for McCarthy East/Wright Deposit

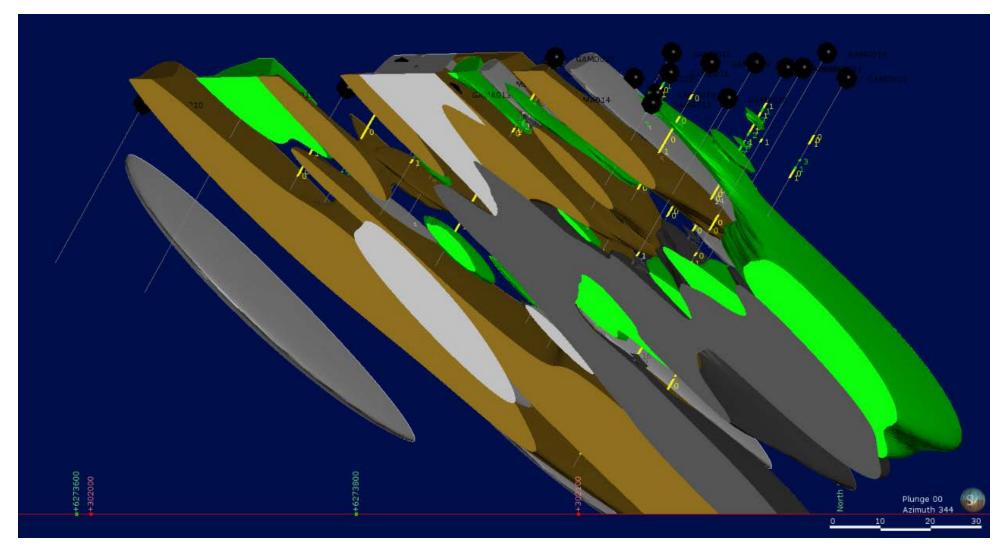




Sectional View of Halberts South Deposit

Section perpendicular to mineralisation strike, looking towards 334 degrees. Green shapes define low Graphite Mineralisation (TGC between 1% and 5%), Brown shapes define mid Graphite Mineralisation (TGC between 5% and 10%), and Grey shapes define mid to high Graphite Mineralisation (TGC between 10% and 15%).





Sectional View of Halberts South Deposit

Section perpendicular to mineralisation strike, looking towards 334 degrees. Green shapes define low Graphite Mineralisation (TGC between 1% and 5%), Brown shapes define mid Graphite Mineralisation (TGC between 5% and 10%), Light Grey shapes define mid to high Graphite Mineralisation (TGC between 10% and 15%), and Dark Grey shapes define high Graphite Mineralisation (TGC >15%).



List of Air Core holes drilled at Munglinup

Project	Prospect	Hole_ID	NAT_GRID_ID	NAT_EAST	NAT_NORTH	Elevation	Survey Method	Azimuth	MAG_Azimuth	Dip	Max_Depth	Company	Drill_Date
Munglinup	Halberts Main Zone	GAMA001	GDA94 - MGA Zone 51	301627	6272591	85	GPS	256	255.857	-60	38.0	Graphite Australia	12/03/2013
Munglinup	Halberts Main Zone	GAMA002	GDA94 - MGA Zone 51	301647	6272596	83	GPS	255	254.857	-60	26.0	Graphite Australia	13/03/2013
Munglinup	Halberts Main Zone	GAMA003	GDA94 - MGA Zone 51	301668	6272603	83	GPS	256	255.857	-60	31.0	Graphite Australia	13/03/2013
Munglinup	Halberts Main Zone	GAMA004	GDA94 - MGA Zone 51	301683	6272606	81	GPS	265	264.857	-60	31.0	Graphite Australia	13/03/2013
Munglinup	Halberts Main Zone	GAMA005	GDA94 - MGA Zone 51	301632	6272633	87	GPS	258	257.857	-60	27.0	Graphite Australia	13/03/2013
Munglinup	Halberts Main Zone	GAMA006	GDA94 - MGA Zone 51	301652	6272636	84	GPS	258	257.857	-60	43.0	Graphite Australia	13/03/2013
Munglinup	Halberts Main Zone	GAMA007	GDA94 - MGA Zone 51	301595	6272710	90	GPS	256	255.857	-60	39.0	Graphite Australia	13/03/2013
Munglinup	Halberts Main Zone	GAMA008	GDA94 - MGA Zone 51	301614	6272714	90	GPS	256	255.857	-60	45.0	Graphite Australia	14/03/2013
Munglinup	Halberts Main Zone	GAMA009	GDA94 - MGA Zone 51	301633	6272718	88	GPS	258	257.857	-60	61.0	Graphite Australia	14/03/2013
Munglinup	Halberts Main Zone	GAMA010	GDA94 - MGA Zone 51	301501	6272769	91	GPS	254	253.857	-60	36.0	Graphite Australia	14/03/2013
Munglinup	Halberts Main Zone	GAMA011	GDA94 - MGA Zone 51	301523	6272772	93	GPS	255	254.857	-60	45.0	Graphite Australia	14/03/2013
Munglinup	Halberts Main Zone	GAMA012	GDA94 - MGA Zone 51	301541	6272775	94	GPS	257	256.857	-60	30.0	Graphite Australia	14/03/2013
Munglinup	Halberts Main Zone	GAMA013	GDA94 - MGA Zone 51	301561	6272780	93	GPS	256	255.857	-60	32.0	Graphite Australia	14/03/2013
Munglinup	Halberts Main Zone	GAMA014	GDA94 - MGA Zone 51	301580	6272785	92	GPS	258	257.857	-60	2.0	Graphite Australia	14/03/2013
Munglinup	Halberts Main Zone	GAMA015	GDA94 - MGA Zone 51	301599	6272791	91	GPS	259	258.857	-60	48.0	Graphite Australia	14/03/2013
Munglinup	Halberts Main Zone	GAMA016	GDA94 - MGA Zone 51	301614	6272793	92	GPS	256	255.857	-60	59.0	Graphite Australia	19/03/2013
Munglinup	Halberts Main Zone	GAMA017	GDA94 - MGA Zone 51	301540	6272860	94	GPS	257	256.857	-60	19.4	Graphite Australia	19/03/2013
Munglinup	Halberts Main Zone	GAMA018	GDA94 - MGA Zone 51	301556	6272863	94	GPS	257	256.857	-60	11.0	Graphite Australia	19/03/2013
Munglinup	Halberts Main Zone	GAMA019	GDA94 - MGA Zone 51	301577	6272871	93	GPS	253	252.857	-60	16.4	Graphite Australia	19/03/2013
Munglinup	Halberts Main Zone	GAMA020	GDA94 - MGA Zone 51	301515	6272938	94	GPS	258	257.857	-60	34.0	Graphite Australia	19/03/2013
Munglinup	Halberts Main Zone	GAMA021	GDA94 - MGA Zone 51	301534	6272941	97	GPS	251	250.857	-60	31.0	Graphite Australia	19/03/2013
Munglinup	Halberts Main Zone	GAMA022	GDA94 - MGA Zone 51	301551	6272946	96	GPS	250	249.857	-60	23.0	Graphite Australia	19/03/2013
Munglinup	Halberts Main Zone	GAMA023	GDA94 - MGA Zone 51	301492	6273023	98	GPS	265	264.857	-60	23.0	Graphite Australia	19/03/2013
Munglinup	Halberts Main Zone	GAMA024	GDA94 - MGA Zone 51	301511	6273022	99	GPS	256	255.857	-60	8.0	Graphite Australia	19/03/2013
Munglinup	Halberts Main Zone	GAMA025	GDA94 - MGA Zone 51	301531	6273023	98	GPS	256	255.857	-60	48.0	Graphite Australia	19/03/2013
Munglinup	Halberts Main Zone	GAMA026	GDA94 - MGA Zone 51	301469	6273177	93	GPS	256	255.857	-60	17.0	Graphite Australia	20/03/2013
Munglinup	Halberts Main Zone	GAMA027	GDA94 - MGA Zone 51	301491	6273181	92	GPS	259	258.857	-60	42.0	Graphite Australia	20/03/2013
Munglinup	Halberts Main Zone	GAMA028	GDA94 - MGA Zone 51	301510	6273181	94	GPS	262	261.857	-60	23.0	Graphite Australia	20/03/2013
Munglinup	Harris	GAMA029	GDA94 - MGA Zone 51	301837	6273152	96	GPS	305	304.857	-60	60.0	Graphite Australia	20/03/2013
Munglinup	Harris	GAMA030	GDA94 - MGA Zone 51	301852	6273143	97	GPS	306	305.857	-60	25.0	Graphite Australia	20/03/2013
Munglinup	Harris	GAMA031	GDA94 - MGA Zone 51	301819	6273224	98	GPS	307	306.857	-60	35.0	Graphite Australia	20/03/2013
Munglinup	Harris	GAMA032	GDA94 - MGA Zone 51	301833	6273214	98	GPS	309	308.857	-60	48.0	Graphite Australia	20/03/2013
Munglinup	Harris	GAMA033	GDA94 - MGA Zone 51	301850	6273201	98	GPS	301	300.857	-60	45.0	Graphite Australia	20/03/2013
Munglinup	Harris	GAMA034	GDA94 - MGA Zone 51	301864	6273187	96	GPS	307	306.857	-60	51.0	Graphite Australia	21/03/2013
Munglinup	Harris	GAMA035	GDA94 - MGA Zone 51	301876	6273173	95	GPS	308	307.857	-60	49.0	Graphite Australia	21/03/2013
Munglinup	Harris	GAMA036	GDA94 - MGA Zone 51	301893	6273162	95	GPS	308	307.857	-60	47.0	Graphite Australia	21/03/2013
Munglinup	Harris	GAMA037	GDA94 - MGA Zone 51	301867	6273287	103	GPS	308	307.857	-60	27.0	Graphite Australia	21/03/2013



Project	Prospect	Hole ID	NAT_GRID_ID	NAT EAST	NAT_NORTH	Elevation	Survey	Azimuth	MAG_Azimuth	Dip	Max_Depth	Company	Drill Date
Fioject	Fiospect	Hole_ID	NAT_GRID_ID	NAI_LASI	NAI_NORTH	Lievation	Method	Azimutii	WAG_AZIIIIUTII	υίρ	wax_beptii	Company	Dilli_Date
Munglinup	Halberts South	GAMA038	GDA94 - MGA Zone 51	301747	6271584	73	GPS	240	239.857	-60	21.0	Graphite Australia	23/03/2013
Munglinup	Halberts South	GAMA039	GDA94 - MGA Zone 51	301764	6271594	74	GPS	239	238.857	-60	13.0	Graphite Australia	23/03/2013
Munglinup	Halberts South	GAMA040	GDA94 - MGA Zone 51	301781	6271605	76	GPS	241	240.857	-60	31.0	Graphite Australia	23/03/2013
Munglinup	Halberts South	GAMA041	GDA94 - MGA Zone 51	301768	6271551	75	GPS	245	244.857	-60	9.0	Graphite Australia	23/03/2013
Munglinup	Halberts South	GAMA042	GDA94 - MGA Zone 51	301757	6271546	74	GPS	245	244.857	-60	22.0	Graphite Australia	23/03/2013
Munglinup	Halberts South	GAMA043	GDA94 - MGA Zone 51	301785	6271561	77	GPS	242	241.857	-60	26.0	Graphite Australia	23/03/2013
Munglinup	Halberts South	GAMA044	GDA94 - MGA Zone 51	301804	6271569	77	GPS	247	246.857	-60	38.0	Graphite Australia	23/03/2013
Munglinup	Halberts South	GAMA045	GDA94 - MGA Zone 51	301787	6271517	78	GPS	243	242.857	-60	31.0	Graphite Australia	24/03/2013
Munglinup	Halberts South	GAMA046	GDA94 - MGA Zone 51	301802	6271527	78	GPS	241	240.857	-60	20.0	Graphite Australia	24/03/2013
Munglinup	Halberts South	GAMA047	GDA94 - MGA Zone 51	301822	6271536	78	GPS	244	243.857	-60	18.0	Graphite Australia	24/03/2013
Munglinup	Halberts South	GAMA048	GDA94 - MGA Zone 51	301813	6271532	79	GPS	245	244.857	-60	28.0	Graphite Australia	24/03/2013
Munglinup	Halberts South	GAMA049	GDA94 - MGA Zone 51	301810	6271474	79	GPS	235	234.857	-60	36.0	Graphite Australia	24/03/2013
Munglinup	Halberts South	GAMA050	GDA94 - MGA Zone 51	301825	6271483	79	GPS	239	238.857	-60	20.0	Graphite Australia	24/03/2013
Munglinup	Halberts South	GAMA051	GDA94 - MGA Zone 51	301843	6271493	80	GPS	244	243.857	-60	3.0	Graphite Australia	24/03/2013
Munglinup	Halberts South	GAMA052	GDA94 - MGA Zone 51	301817	6271437	78	GPS	242	241.857	-60	27.0	Graphite Australia	24/03/2013
Munglinup	Halberts South	GAMA053	GDA94 - MGA Zone 51	301826	6271442	78	GPS	242	241.857	-60	2.0	Graphite Australia	24/03/2013
Munglinup	Halberts South	GAMA054	GDA94 - MGA Zone 51	301821	6271405	78	GPS	245	244.857	-60	22.0	Graphite Australia	24/03/2013
Munglinup	Halberts South	GAMA055	GDA94 - MGA Zone 51	301831	6271411	78	GPS	242	241.857	-60	33.0	Graphite Australia	24/03/2013
Munglinup	Halberts South	GAMA056	GDA94 - MGA Zone 51	301850	6271420	79	GPS	243	242.857	-60	4.0	Graphite Australia	24/03/2013
Munglinup	Halberts South	GAMA057	GDA94 - MGA Zone 51	301857	6271424	81	GPS	242	241.857	-60	12.0	Graphite Australia	24/03/2013
Munglinup	Halberts South	GAMA058	GDA94 - MGA Zone 51	301866	6271426	80	GPS	242	241.857	-60	3.0	Graphite Australia	24/03/2013
Munglinup	Halberts South	GAMA059	GDA94 - MGA Zone 51	301847	6271364	81	GPS	243	242.857	-60	25.0	Graphite Australia	24/03/2013
Munglinup	Halberts South	GAMA060	GDA94 - MGA Zone 51	301857	6271368	81	GPS	241	240.857	-60	9.0	Graphite Australia	24/03/2013
Munglinup	Halberts South	GAMA061	GDA94 - MGA Zone 51	301864	6271373	81	GPS	242	241.857	-60	48.0	Graphite Australia	25/03/2013
Munglinup	Halberts South	GAMA062	GDA94 - MGA Zone 51	301872	6271377	82	GPS	242	241.857	-60	40.2	Graphite Australia	25/03/2013
Munglinup	Halberts South	GAMA063	GDA94 - MGA Zone 51	301881	6271378	83	GPS	239	238.857	-60	46.0	Graphite Australia	25/03/2013
Munglinup	Halberts South	GAMA064	GDA94 - MGA Zone 51	301866	6271335	79	GPS	242	241.857	-60	25.0	Graphite Australia	25/03/2013
Munglinup	Halberts South	GAMA065	GDA94 - MGA Zone 51	301875	6271338	81	GPS	243	242.857	-60	42.0	Graphite Australia	25/03/2013
Munglinup	Halberts South	GAMA066	GDA94 - MGA Zone 51	301884	6271343	80	GPS	238	237.857	-60	23.2	Graphite Australia	25/03/2013
Munglinup	Halberts South	GAMA067	GDA94 - MGA Zone 51	301892	6271348	81	GPS	243	242.857	-60	61.0	Graphite Australia	25/03/2013
Munglinup	Halberts South	GAMA068	GDA94 - MGA Zone 51	301890	6271294	81	GPS	239	238.857	-60	32.0	Graphite Australia	25/03/2013
Munglinup	Halberts South	GAMA069	GDA94 - MGA Zone 51	301898	6271300	81	GPS	238	237.857	-60	35.0	Graphite Australia	25/03/2013
Munglinup	Halberts South	GAMA070	GDA94 - MGA Zone 51	301907	6271306	82	GPS	238	237.857	-60	13.2	Graphite Australia	25/03/2013
Munglinup	Halberts South	GAMA071	GDA94 - MGA Zone 51	301916	6271310	82	GPS	241	240.857	-60	35.0	Graphite Australia	25/03/2013
	Halberts South	GAMA072	GDA94 - MGA Zone 51	301916	6271276	83	GPS	243	242.857	-60	36.0	Graphite Australia	26/03/2013
Munglinup	Halberts South	GAMA073	GDA94 - MGA Zone 51	301926	6271279	81	GPS	242	241.857	-60	43.0	Graphite Australia	27/03/2013
Munglinup	Halberts South	GAMA074	GDA94 - MGA Zone 51	301932	6271284	83	GPS	242	241.857	-60	54.0	Graphite Australia	27/03/2013
Munglinup	Halberts South	GAMA075	GDA94 - MGA Zone 51	301930	6271231	79	GPS	239	238.857	-60	38.0	Graphite Australia	28/03/2013
Munglinup	Halberts South	GAMA076	GDA94 - MGA Zone 51	301941	6271232	81	GPS	236	235.857	-60	31.0	Graphite Australia	29/03/2013
	Halberts South	GAMA077	GDA94 - MGA Zone 51	301949	6271238	81	GPS	241	240.857	-60	45.5	Graphite Australia	30/03/2013
Munglinup	Halberts South	GAMA078	GDA94 - MGA Zone 51	301952	6271242	82	GPS	241	240.857	-60	21.0	Graphite Australia	31/03/2013
Munglinup	Halberts South	GAMA079	GDA94 - MGA Zone 51	301949	6271200	77	GPS	241	240.857	-60	61.0	Graphite Australia	28/03/2013
	Halberts South	GAMA080	GDA94 - MGA Zone 51	301956	6271204	78	GPS	244	243.857	-60	25.0	Graphite Australia	28/03/2013



Project	Prospect	Hole_ID	NAT_GRID_ID	NAT_EAST	NAT_NORTH	Elevation	Survey Method	Azimuth	MAG_Azimuth	Dip	Max_Depth	Company	Drill_Date
Munglinup	Halberts South	GAMA081	GDA94 - MGA Zone 51	301965	6271208	78	GPS	244	243.857	-60	28.0	Graphite Australia	28/03/2013
Munglinup	Halberts South	GAMA082	GDA94 - MGA Zone 51	301973	6271209	79	GPS	242	241.857	-60	38.0	Graphite Australia	28/03/2013
Munglinup	Halberts South	GAMA083	GDA94 - MGA Zone 51	301977	6271166	76	GPS	244	243.857	-60	29.0	Graphite Australia	28/03/2013
Munglinup	Halberts South	GAMA084	GDA94 - MGA Zone 51	301988	6271171	75	GPS	242	241.857	-60	30.0	Graphite Australia	28/03/2013
Munglinup	Halberts South	GAMA085	GDA94 - MGA Zone 51	301995	6271174	76	GPS	242	241.857	-60	17.0	Graphite Australia	28/03/2013
Munglinup	Halberts South	GAMA086	GDA94 - MGA Zone 51	301994	6271135	73	GPS	242	241.857	-60	14.0	Graphite Australia	29/03/2013
Munglinup	Halberts South	GAMA087	GDA94 - MGA Zone 51	302002	6271138	74	GPS	243	242.857	-60	23.0	Graphite Australia	29/03/2013
Munglinup	Halberts Main Zone	GAMA088	GDA94 - MGA Zone 51	301656	6272601	84	GPS	257	256.857	-60	34.0	Graphite Australia	29/03/2013
Munglinup	Halberts Main Zone	GAMA089	GDA94 - MGA Zone 51	301623	6272633	87	GPS	257	256.857	-60	26.0	Graphite Australia	29/03/2013
Munglinup	Wright	GAMA090	GDA94 - MGA Zone 51	301913	6273561	107	GPS	315	314.857	-60	23.0	Graphite Australia	29/03/2013
Munglinup	Wright	GAMA091	GDA94 - MGA Zone 51	301925	6273551	108	GPS	310	309.857	-60	11.0	Graphite Australia	29/03/2013
Munglinup	Wright	GAMA092	GDA94 - MGA Zone 51	301918	6273556	107	GPS	310	309.857	-60	25.0	Graphite Australia	29/03/2013
Munglinup	Wright	GAMA093	GDA94 - MGA Zone 51	301936	6273602	110	GPS	318	317.857	-60	16.0	Graphite Australia	29/03/2013
Munglinup	Wright	GAMA094	GDA94 - MGA Zone 51	301943	6273594	109	GPS	320	319.857	-60	18.0	Graphite Australia	29/03/2013
Munglinup	Wright	GAMA095	GDA94 - MGA Zone 51	301953	6273627	111	GPS	308	307.857	-60	13.0	Graphite Australia	29/03/2013
Munglinup	Wright	GAMA096	GDA94 - MGA Zone 51	301958	6273621	110	GPS	310	309.857	-60	17.0	Graphite Australia	29/03/2013
Munglinup	Wright	GAMA097	GDA94 - MGA Zone 51	301966	6273616	111	GPS	310	309.857	-60	21.0	Graphite Australia	29/03/2013
Munglinup	Wright	GAMA098	GDA94 - MGA Zone 51	301994	6273655	113	GPS	318	317.857	-60	12.0	Graphite Australia	29/03/2013
Munglinup	Wright	GAMA099	GDA94 - MGA Zone 51	302000	6273648	113	GPS	310	309.857	-60	17.0	Graphite Australia	29/03/2013
Munglinup	Wright	GAMA100	GDA94 - MGA Zone 51	302031	6273674	117	GPS	311	310.857	-60	17.0	Graphite Australia	30/03/2013
Munglinup	Wright	GAMA101	GDA94 - MGA Zone 51	302041	6273666	115	GPS	312	311.857	-60	21.0	Graphite Australia	30/03/2013
Munglinup	Wright	GAMA102	GDA94 - MGA Zone 51	302048	6273660	113	GPS	314	313.857	-60	27.0	Graphite Australia	30/03/2013
Munglinup	Wright	GAMA103	GDA94 - MGA Zone 51	302057	6273653	113	GPS	313	312.857	-60	22.0	Graphite Australia	30/03/2013
Munglinup	Wright	GAMA104	GDA94 - MGA Zone 51	302063	6273647	113	GPS	307	306.857	-60	10.0	Graphite Australia	30/03/2013
Munglinup	Wright	GAMA105	GDA94 - MGA Zone 51	302059	6273702	116	GPS	315	314.857	-60	17.0	Graphite Australia	30/03/2013
Munglinup	Wright	GAMA106	GDA94 - MGA Zone 51	302068	6273697	116	GPS	315	314.857	-60	21.0	Graphite Australia	30/03/2013
Munglinup	Wright	GAMA107	GDA94 - MGA Zone 51	302073	6273689	116	GPS	305	304.857	-60	6.0	Graphite Australia	30/03/2013
Munglinup	Wright	GAMA108	GDA94 - MGA Zone 51	301800	6273435	100	GPS	314	313.857	-60	14.0	Graphite Australia	30/03/2013
Munglinup	Wright	GAMA109	GDA94 - MGA Zone 51	301821	6273420	100	GPS	314	313.857	-60	22.0	Graphite Australia	30/03/2013
Munglinup	Wright	GAMA110	GDA94 - MGA Zone 51	301833	6273404	99	GPS	310	309.857	-60	31.0	Graphite Australia	30/03/2013



Project	Prospect	Hole_ID	NAT_GRID_ID	NAT_EAST	NAT_NORTH	Elevation	Survey Method	Azimuth	MAG_Azimuth	Dip	Max_Depth	Company	Drill_Date
Munglinup	Harris	GAMA111	GDA94 - MGA Zone 51	301819	6273171	97	GPS	308	307.857	-60	49.0	Graphite Australia	30/03/2013
Munglinup	Harris	GAMA112	GDA94 - MGA Zone 51	301808	6273182	97	GPS	313	312.857	-60	45.0	Graphite Australia	30/03/2013
Munglinup	Harris	GAMA113	GDA94 - MGA Zone 51	301785	6273148	93	GPS	308	307.857	-60	53.0	Graphite Australia	31/03/2013
Munglinup	Harris	GAMA114	GDA94 - MGA Zone 51	301800	6273138	93	GPS	312	311.857	-60	49.0	Graphite Australia	31/03/2013
Munglinup	Harris	GAMA115	GDA94 - MGA Zone 51	301816	6273123	93	GPS	310	309.857	-60	31.0	Graphite Australia	31/03/2013
Munglinup	Harris	GAMA116	GDA94 - MGA Zone 51	301881	6273275	103	GPS	310	309.857	-60	22.0	Graphite Australia	31/03/2013
Munglinup	Harris	GAMA117	GDA94 - MGA Zone 51	301897	6273265	99	GPS	306	305.857	-60	24.2	Graphite Australia	31/03/2013
Munglinup	Harris	GAMA118	GDA94 - MGA Zone 51	301912	6273253	103	GPS	308	307.857	-60	45.0	Graphite Australia	31/03/2013
Munglinup	Harris	GAMA119	GDA94 - MGA Zone 51	301984	6273350	107	GPS	311	310.857	-60	24.0	Graphite Australia	1/04/2013
Munglinup	Harris	GAMA120	GDA94 - MGA Zone 51	302001	6273336	105	GPS	313	312.857	-60	33.0	Graphite Australia	1/04/2013
Munglinup	Harris	GAMA121	GDA94 - MGA Zone 51	302016	6273321	105	GPS	311	310.857	-60	17.0	Graphite Australia	1/04/2013
Munglinup	Harris	GAMA122	GDA94 - MGA Zone 51	302029	6273309	102	GPS	312	311.857	-60	31.0	Graphite Australia	1/04/2013
Munglinup	Harris	GAMA123	GDA94 - MGA Zone 51	302044	6273298	102	GPS	305	304.857	-60	40.0	Graphite Australia	1/04/2013
Munglinup	Harris	GAMA124	GDA94 - MGA Zone 51	302006	6273383	105	GPS	305	304.857	-60	34.0	Graphite Australia	1/04/2013
Munglinup	Harris	GAMA125	GDA94 - MGA Zone 51	302020	6273372	103	GPS	310	309.857	-60	45.0	Graphite Australia	1/04/2013
Munglinup	Harris	GAMA126	GDA94 - MGA Zone 51	302036	6273359	104	GPS	312	311.857	-60	57.0	Graphite Australia	1/04/2013
Munglinup	Harris	GAMA127	GDA94 - MGA Zone 51	302048	6273346	103	GPS	305	304.857	-60	31.0	Graphite Australia	1/04/2013
Munglinup	Harris	GAMA128	GDA94 - MGA Zone 51	302043	6273400	105	GPS	312	311.857	-60	31.0	Graphite Australia	1/04/2013
Munglinup	Harris	GAMA129	GDA94 - MGA Zone 51	302061	6273387	105	GPS	309	308.857	-60	23.0	Graphite Australia	1/04/2013
Munglinup	McCarthy	GAMA130	GDA94 - MGA Zone 51	301539	6273763	102	GPS	310	309.857	-60	9.0	Graphite Australia	2/04/2013
Munglinup	McCarthy	GAMA131	GDA94 - MGA Zone 51	301556	6273749	103	GPS	310	309.857	-60	12.0	Graphite Australia	2/04/2013
Munglinup	McCarthy	GAMA132	GDA94 - MGA Zone 51	301588	6273716	103	GPS	301	300.857	-60	18.0	Graphite Australia	2/04/2013
Munglinup	McCarthy	GAMA133	GDA94 - MGA Zone 51	301607	6273702	102	GPS	305	304.857	-60	29.0	Graphite Australia	2/04/2013
Munglinup	McCarthy	GAMA134	GDA94 - MGA Zone 51	301552	6273803	102	GPS	305	304.857	-60	6.0	Graphite Australia	2/04/2013
Munglinup	McCarthy	GAMA135	GDA94 - MGA Zone 51	301569	6273794	103	GPS	304	303.857	-60	17.0	Graphite Australia	2/04/2013
Munglinup	McCarthy	GAMA136	GDA94 - MGA Zone 51	301583	6273784	103	GPS	306	305.857	-60	5.0	Graphite Australia	2/04/2013
Munglinup	McCarthy	GAMA137	GDA94 - MGA Zone 51	301604	6273764	104	GPS	314	313.857	-60	1.0	Graphite Australia	2/04/2013
Munglinup	McCarthy	GAMA138	GDA94 - MGA Zone 51	301620	6273748	104	GPS	316	315.857	-60	21.0	Graphite Australia	2/04/2013
Munglinup	McCarthy	GAMA139	GDA94 - MGA Zone 51	301636	6273733	105	GPS	319	318.857	-60	9.0	Graphite Australia	2/04/2013
Munglinup	McCarthy	GAMA140	GDA94 - MGA Zone 51	301611	6273757	105	GPS	314	313.857	-60	17.0	Graphite Australia	2/04/2013
Munglinup	McCarthy	GAMA141	GDA94 - MGA Zone 51	301599	6273831	106	GPS	295	294.857	-60	17.5	Graphite Australia	2/04/2013
Munglinup	McCarthy	GAMA142	GDA94 - MGA Zone 51	301617	6273818	106	GPS	318	317.857	-60	33.0	Graphite Australia	2/04/2013
Munglinup	McCarthy	GAMA143	GDA94 - MGA Zone 51	301626	6273803	106	GPS	319	318.857	-60	8.0	Graphite Australia	2/04/2013
Munglinup	McCarthy	GAMA144	GDA94 - MGA Zone 51	301641	6273786	104	GPS	312	311.857	-60	11.0	Graphite Australia	2/04/2013
Munglinup	McCarthy	GAMA145	GDA94 - MGA Zone 51	301655	6273775	104	GPS	305	304.857	-60	19.3	Graphite Australia	2/04/2013
Munglinup	McCarthy	GAMA146	GDA94 - MGA Zone 51	301605	6273862	108	GPS	307	306.857	-60	25.0	Graphite Australia	2/04/2013
Munglinup	McCarthy	GAMA147	GDA94 - MGA Zone 51	301618	6273850	109	GPS	313	312.857	-60	31.0	Graphite Australia	3/04/2013
Munglinup	McCarthy	GAMA148	GDA94 - MGA Zone 51	301635	6273837	109	GPS	310	309.857	-60	43.0	Graphite Australia	3/04/2013
Munglinup	McCarthy	GAMA149	GDA94 - MGA Zone 51	301648	6273821	108	GPS	305	304.857	-60	53.0	Graphite Australia	3/04/2013
Munglinup	McCarthy	GAMA150	GDA94 - MGA Zone 51	301664	6273806	107	GPS	303	302.857	-60	46.0	Graphite Australia	3/04/2013
Munglinup	McCarthy	GAMA151	GDA94 - MGA Zone 51	301681	6273796	107	GPS	308	307.857	-60	2.0	Graphite Australia	3/04/2013
Munglinup	McCarthy	GAMA152	GDA94 - MGA Zone 51	301673	6273802	108	GPS	310	309.857	-60	11.0	Graphite Australia	3/04/2013
Munglinup	McCarthy	GAMA153	GDA94 - MGA Zone 51	301633	6273873	111	GPS	323	322.857	-60	18.0	Graphite Australia	3/04/2013
Munglinup	McCarthy	GAMA154	GDA94 - MGA Zone 51	301646	6273862	112	GPS	311	310.857	-60	27.0	Graphite Australia	3/04/2013
Munglinup	McCarthy	GAMA155	GDA94 - MGA Zone 51	301661	6273850	112	GPS	308	307.857	-60	38.0	Graphite Australia	3/04/2013



Project	Prospect	Hole_ID	NAT_GRID_ID	NAT_EAST	NAT_NORTH	Elevation	Survey Method	Azimuth	MAG_Azimuth	Dip	Max_Depth	Company	Drill_Date
Munglinup	McCarthy	GAMA156	GDA94 - MGA Zone 51	301680	6273840	109	GPS	298	297.857	-60	30.0	Graphite Australia	3/04/2013
Munglinup	McCarthy	GAMA157	GDA94 - MGA Zone 51	301690	6273833	110	GPS	301	300.857	-60	41.0	Graphite Australia	3/04/2013
Munglinup	McCarthy	GAMA158	GDA94 - MGA Zone 51	301674	6273898	114	GPS	305	304.857	-60	14.0	Graphite Australia	4/04/2013
Munglinup	McCarthy	GAMA159	GDA94 - MGA Zone 51	301691	6273886	112	GPS	314	313.857	-60	23.0	Graphite Australia	4/04/2013
Munglinup	McCarthy	GAMA160	GDA94 - MGA Zone 51	301707	6273872	111	GPS	315	314.857	-60	10.0	Graphite Australia	4/04/2013
Munglinup	McCarthy	GAMA161	GDA94 - MGA Zone 51	301714	6273865	110	GPS	315	314.857	-60	25.0	Graphite Australia	4/04/2013

List of Diamond drill holes drilled at Munglinup

Project	Prospect	Hole_ID	NAT_GRID_ID	NAT_EAST	NAT_NORTH	Elevation	Survey Method	Azimuth	MAG_Azimuth	Dip	Max_Depth	Drill_Date	Company
Munglinup	Halbert's Main Zone	GAMD005	GDA94 - MGA Zone 51	301531	6273145	99	GPS	260	259.857	-60	67.0	28/04/2013	Graphite Australia
Munglinup	Halbert's Main Zone	GAMD004	GDA94 - MGA Zone 51	301487	6273133	98	GPS	258	257.857	-60	52.0	27/04/2013	Graphite Australia
Munglinup	Halbert's Main Zone	GAMD002	GDA94 - MGA Zone 51	301515	6273105	98	GPS	258	257.857	-60	55.0	24/04/2013	Graphite Australia
Munglinup	Halbert's Main Zone	GAMD003	GDA94 - MGA Zone 51	301494	6273100	100	GPS	258	257.857	-60	33.8	26/04/2013	Graphite Australia
Munglinup	Halbert's Main Zone	GAMD001	GDA94 - MGA Zone 51	301538	6273105	100	GPS	258	257.857	-60	79.0	23/04/2013	Graphite Australia
Munglinup	Halbert's Main Zone	GAMD006	GDA94 - MGA Zone 51	301545	6273069	103	GPS	258	257.857	-60	66.8	29/04/2013	Graphite Australia
Munglinup	Halbert's Main Zone	GAMD008	GDA94 - MGA Zone 51	301513	6273025	96	GPS	258	257.857	-60	57.1	2/05/2013	Graphite Australia
Munglinup	Halbert's Main Zone	GAMD007	GDA94 - MGA Zone 51	301543	6273030	96	GPS	258	257.857	-60	78.2	1/05/2013	Graphite Australia
Munglinup	Halbert's Main Zone	GAMD009	GDA94 - MGA Zone 51	301489	6272982	87	GPS	258	257.857	-60	48.9	3/05/2013	Graphite Australia
Munglinup	Halbert's Main Zone	GAMD010	GDA94 - MGA Zone 51	301533	6272981	98	GPS	258	257.857	-60	91.0	4/05/2013	Graphite Australia
Munglinup	Halbert's Main Zone	GAMD011	GDA94 - MGA Zone 51	301571	6272994	100	GPS	258	257.857	-60	77.0	5/05/2013	Graphite Australia
Munglinup	Halbert's Main Zone	GAMD012	GDA94 - MGA Zone 51	301559	6272945	101	GPS	258	257.857	-60	54.3	6/05/2013	Graphite Australia
Munglinup	Halbert's Main Zone	GAMD013	GDA94 - MGA Zone 51	301575	6272949	99	GPS	258	257.857	-60	71.8	7/05/2013	Graphite Australia
Munglinup	Halbert's Main Zone	GAMD020	GDA94 - MGA Zone 51	301517	6272898	98	GPS	258	257.857	-60	40.0	13/05/2013	Graphite Australia
Munglinup	Halbert's Main Zone	GAMD014	GDA94 - MGA Zone 51	301600	6272913	101	GPS	258	257.857	-60	70.0	8/05/2013	Graphite Australia
Munglinup	Halbert's Main Zone	GAMD015	GDA94 - MGA Zone 51	301544	6272863	95	GPS	258	257.857	-60	37.0	9/05/2013	Graphite Australia
Munglinup	Halbert's Main Zone	GAMD016	GDA94 - MGA Zone 51	301580	6272870	97	GPS	258	257.857	-60	69.7	10/05/2013	Graphite Australia
Munglinup	Halbert's Main Zone	GAMD017	GDA94 - MGA Zone 51	301602	6272877	98	GPS	258	257.857	-60	73.6	11/05/2013	Graphite Australia
Munglinup	Halbert's Main Zone	GAMD018	GDA94 - MGA Zone 51	301625	6272840	96	GPS	258	257.857	-60	87.90	12/05/2013	Graphite Australia
Munglinup	Halbert's Main Zone	GAMD019	GDA94 - MGA Zone 51	301599	6272833	99	GPS	258	257.857	-60	66.10	13/05/2013	Graphite Australia
Munglinup	Halbert's Main Zone	GAMD022	GDA94 - MGA Zone 51	301580	6272788	100	GPS	258	257.857	-60	57.90	16/05/2013	Graphite Australia
Munglinup	Halbert's Main Zone	GAMD021	GDA94 - MGA Zone 51	301628	6272798	98	GPS	258	257.857	-60	91.00	15/05/2013	Graphite Australia



Project	Prospect	Hole_ID	NAT_GRID_ID	NAT_EAST	NAT_NORTH	Elevation	Survey Method	Azimuth	MAG_Azimuth	Dip	Max_Depth	Drill_Date	Company
Munglinup	Halbert's Main Zone	MD1	GDA94 - MGA Zone 51	301460	6273053	100		260	259.857	-60	35.0	2/02/1986	Gwalia Minerals NL
Munglinup	Halbert's Main Zone	MD2	GDA94 - MGA Zone 51	301486	6273059	101		260	259.357	-60	52.0	7/02/1986	Gwalia Minerals NL
Munglinup	Halbert's Main Zone	MD3	GDA94 - MGA Zone 51	301509	6273065	102		260	259.857	-60	56.5	4/02/1986	Gwalia Minerals NL
Munglinup	Halbert's Main Zone	MD4	GDA94 - MGA Zone 51	301543	6272827	99		260	259.857	-60	33.0	12/02/1986	Gwalia Minerals NL
Munglinup	Halbert's Main Zone	MD5	GDA94 - MGA Zone 51	301567	6272833	99		260	259.857	-60	45.0	9/02/1986	Gwalia Minerals NL
Munglinup	Halbert's Main Zone	MD6	GDA94 - MGA Zone 51	301591	6272839	100		260	259.857	-60	36.0	13/02/1986	Gwalia Minerals NL
Munglinup	Halbert's Main Zone	MD7	GDA94 - MGA Zone 51	301486	6273141	101		257	256.857	-60	52.0	27/?/1988	Gwalia Minerals NL
Munglinup	Halbert's Main Zone	MD8	GDA94 - MGA Zone 51	301444	6273122	99		257	256.857	-60	37.5	2/07/1988	Gwalia Minerals NL
Munglinup	Halbert's Main Zone	MD9	GDA94 - MGA Zone 51	301489	6272977	101		257	256.857	-60	34.6	5/07/1988	Gwalia Minerals NL
Munglinup	Halbert's Main Zone	MD10	GDA94 - MGA Zone 51	301536	6272990	103		257	256.857	-60	61.1	8/07/1988	Gwalia Minerals NL
Munglinup	Halbert's Main Zone	MD11	GDA94 - MGA Zone 51	301561	6272914	103		256	255.857	-60	56.5	11/07/1988	Gwalia Minerals NL
Munglinup	Halbert's Main Zone	MD12	GDA94 - MGA Zone 51	301536	6272907	102		257	256.357	-60	54.5	14/07/1988	Gwalia Minerals NL
Munglinup	Halbert's Main Zone	MD13	GDA94 - MGA Zone 51	301570	6272751	98		257	256.857	-60	33.8	18/07/1988	Gwalia Minerals NL
Munglinup	Halbert's Main Zone	MD14	GDA94 - MGA Zone 51	301594	6272758	98		257	256.857	-60	50.0	20/07/1988	Gwalia Minerals NL
Munglinup	Halbert's Main Zone	MD15	GDA94 - MGA Zone 51	301614	6272677	96		257	256.857	-60	40.5	22/07/1988	Gwalia Minerals NL
Munglinup	Halbert's Main Zone	MD16	GDA94 - MGA Zone 51	301637	6272684	95		257	256.857	-60	51.0	25/07/1988	Gwalia Minerals NL