



Australian Securities Exchange
Company Announcements Office

22 October 2018

POSITIVE MUNGLINUP GRAPHITE OPTIMISATION TESTWORK RESULTS

HIGHLIGHTS

- Graphite concentrate flake size distribution improvement with coarse flake (+150µm) accounting for 46% to 57% of the concentrate
- Graphite concentrate grade improvement with coarse flake (+150µm) grades of 95.7% to 97.7% TGC being achieved
- Graphite concentrate grade improvement with fine flake (-150µm) grades of up to 98.3% TGC

Mineral Commodities Ltd (ASX: MRC) ("the Company" or "MRC") is pleased to announce that recent optimisation testwork for Munglinup continues the trend in positive outcomes for the Munglinup Graphite Project ("the Project").

The testwork focused on optimising the flake size distribution and final grades of the concentrate using a new master composite that will be used to generate additional bulk concentrate for marketing and downstream processing studies. The testwork investigated adjusting reagents addition rates, the number of cleaning and recleaning flotation stages, the number of polishing grinds, alternate reagents and intermediate screening.

The results showed that the coarse flake fraction (+150µm) can be maintained at around 50% of the concentrate at high average Total Graphite Content ("TGC") grades (up to 97.7%) and that high-grade fines (-150µm) concentrate can be produced with up to an average of 98.3% TGC. Typical test results are presented in the Table below, reflecting a range of alternate flowsheet options.

Test	BF1281	BF1304	BF1289	BF1305	BF1306
Mass in +150µm fraction	48.4%	47.7%	57.0%	46.4%	54.1%
TGC in +150µm fraction	97.7%	96.5%	95.7%	96.5%	97.4%
Mass in -150µm fraction	51.6%	52.3%	43.0%	53.6%	45.9%
TGC in -150µm fraction	94.2%	94.1%	97.2%	98.3%	97.9%
Total TGC Recovery	86.6%	87.1%	86.4%	84.9%	84.6%

The Company is particularly pleased with the high grades achieved for the finer flakes and the mass split to the coarse fraction.



This work is being used to build-in flexibility in the Project's flotation and grinding flowsheet design that will allow for targeting higher grade fines concentrates, higher overall recoveries and/or further upgrades to the coarse fraction.

Executive Chairman Mark Caruso said, *"These results continue to refine and reinforce the technical and process robustness of the Munglinup Graphite Project. The additional process design testwork confirms that the Munglinup Graphite Project will produce some of the highest-grade graphite concentrates globally amongst current and proposed development projects through proven flotation methods. Significantly the -150µm finer fraction also upgrades to +97% TGC average. In addition, recoveries remain consistent with previous testwork while the flake size distribution improves. We are confident that these results will set the foundation for further enhancing the Munglinup Graphite Project DFS which is due to be completed in the first quarter of 2019."*

- ENDS -

For enquiries regarding this release please contact:

Peter Torre – Company Secretary

Ph +61 8 6253 1100

About Mineral Commodities Ltd:

Mineral Commodities Ltd (ASX: MRC) is a global exploration and mining company with a primary focus on the development of high-grade mineral deposits within the industrial minerals, base metals, bulk commodities and precious metals sectors.

The Company is a leading producer of zircon, rutile, garnet and ilmenite concentrates through its Mineral Sands Operation at Tormin, located on the west coast of South Africa. The planned development of the Munglinup Graphite Project, located near Esperance in Western Australia, is consistent with the Company's strategy to capitalise on the fast growing sustainable renewable energy storage and electric vehicle revolution as well as downstream vertically integrated value-adding.

The Company has also secured first-mover advantage in Iran, considered the most prospective and underdeveloped mineral resource country in the world, and has entered into agreements and applied for tenements over a number of prospective areas in Western Australia targeting vanadium, lithium, channel iron ore and gold/copper.



Cautionary Statement

This report may contain forward-looking statements. Any forward-looking statements 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.

Competent Persons Attributions

Exploration Results

The information in this report that relates to Exploration Results, is based on information compiled by Mr Daniel Hastings, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. 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.

Metallurgical Testwork

The variability metallurgical testwork was managed by Mr David Pass of Battery Limits. Mr Pass has sufficient experience that is relevant to the style of mineralisation and types of testwork under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Pass is employed by Battery Limits, an Australian based consultancy specialising in processing of graphite concentrates. Mr Pass consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Bulk Sample / New Master Composite Sample Data & Locations

The samples used this optimisation testwork were sourced from various depths from six diamond drill holes in Halberts Main (Figure 1) and two diamond drill holes in Halberts South (Figure 2).

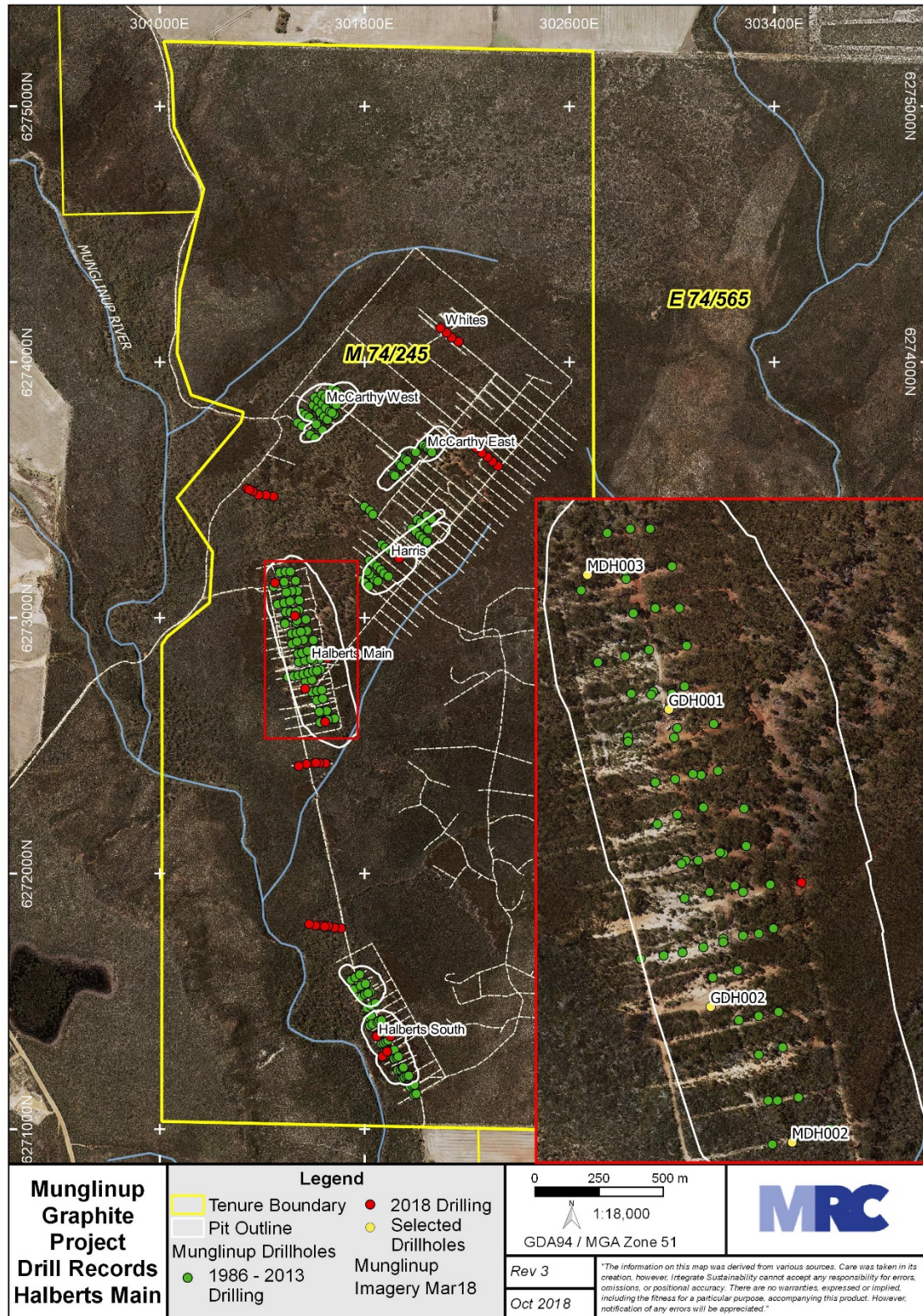


Figure 1 - Location of drill holes at Halberts Main used to produce the metallurgical variability samples and showing the proposed pit optimisation outline

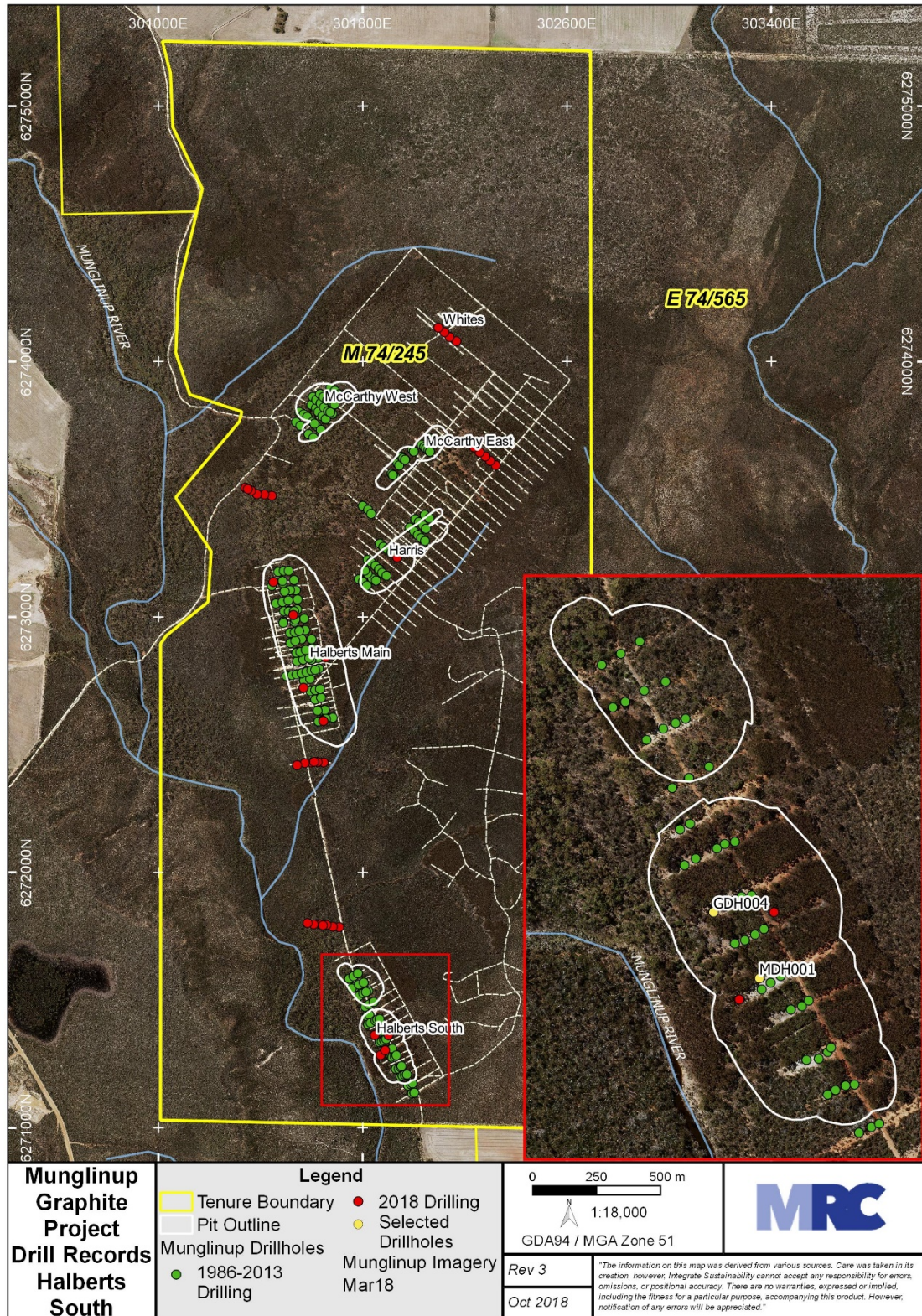


Figure 2 - Location of drill holes at Halberts South used to produce the metallurgical variability samples and showing the proposed pit optimisation outline

JORC 2012 - Table 1, Section 1 Sampling Techniques and Data

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

Criteria	Commentary
Sampling techniques	Diamond core (PQ and HQ3) was cut into quarter core for assay at the MRC Welshpool office using a diamond impregnated blade on a core saw. Quarter core samples were generally 1 metre in length and honored geological contacts.
Drilling techniques	- Diamond drilling was done using HQ and PQ triple tube. - The mineralisation occurs from surface and drilling was done to a maximum of 80m depth.
Drill sample recovery	- Due to the style of the deposit it is considered that any material loss is not significant to the estimation of mineralisation. - Generally, drill core recovery was above 95%. Core recovery was measured and compared directly with drill depths to determine sample recoveries. - Diamond core was reconstructed into continuous runs on an angle iron cradle for orientation marking however given the weathered nature of the core, no drill sections could be reconstructed with confidence. - Depths were checked against the depth given on the core blocks and rod counts were routinely carried out by the drillers.
Logging	- A comprehensive logging system has been developed and includes 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. 8 new diamond holes were drilled in the phase 1, 2018 drilling program and were logged in full using the comprehensive logging system previously developed. - 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	- Duplicates (quarter core) were taken every 20 meters. - New diamond core (PQ and HQ3) was cut into quarter core onsite using a diamond impregnated blade on a core saw where possible. Quarter core samples generally 1 metre or less in core length are submitted to the lab labelled with a single sample name. Samples are generally defined according to geological unit boundaries. - The drill sample sizes are considered to be appropriate to correctly represent mineralisation at Munglinup based on the style of mineralisation, the thickness and consistency of the intersections, the sampling methodology and anticipated graphite percent value ranges.
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 ALS Geochemistry for the phase 1, 2018 MRC drilling program in Perth. - The graphite content is reported as Total Graphitic Carbon (TGC). Prepared samples were 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



Criteria	Commentary
	combusted in oxygen with a Carbon-Sulphur Analyser and analysed for Total Graphitic Carbon (TGC).
Verification of sampling and assaying	• The geological logging of all drill core was undertaken by trained geological staff at the MRC offices in Welshpool, WA. • Sample information is recorded at the time of sampling in electronic and hard copy. • Mr. Chris de Vitry of Manna Hill Geoconsulting visually verified geological observations of some of the reported Diamond drill holes at Halberts Main and Halberts South. He also toured site after the conclusion of the drill program.
Location of data points	• Diamond drill holes were surveyed at 30m depth and the end of hole. • Phase 1, 2018 drill holes have been surveyed by hand-held GPS only at this stage. The RL values were derived by fitting the collars to a LIDAR topographic surface. • The dip and azimuth of some of the diamond holes were measured at the collar only by the supervising geologist given the very short depths of the drill holes.
Data spacing and distribution	• Drill spacing: ○ Halberts Main Zone: (Drill Grid 50 x 20m). ○ Halbert 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 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 ALS. AECOM also recovered the processed sample material for storage with the remaining core and air core samples at a secured location in Welshpool, WA. • Recent drilling samples have been retained at ALS. Residual core samples are stored at the MRC offices in Welshpool, WA.
Audits or reviews	• The recent 2018 drilling program data has been reviewed by Mr. Chris de Vitry of Manna Hill Geoconsulting. The review indicated that the procedures were satisfactory and fit for purpose, and that the assays reported to date were acceptable.

**JORC 2012 - Table 1, Section 2 Reporting of Metallurgical Results**

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

Criteria	Commentary
<i>Mineral tenement and land tenure status</i>	• 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 the 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.
<i>Metallurgical work done by other parties</i>	• 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. 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 forms 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 has been undertaken to address this. • No specific allowances have been made for deleterious elements. Any non-graphite 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. This was confirmed by the recent metallurgical testwork reported in the Company's Announcement on 8 February 2018.



Criteria	Commentary
	• An 8t bulk sample was extracted from the Halberts Main deposit to be used for metallurgical test work undertaken by Nagrom in 2011. This sample does include material from the three mineralisation types. The sample has ultimately been deemed only partially representative as it does not include material from depth. Recent metallurgical testwork utilised a master composite derived from historical drilling core and that has been selected to provide high representivity of the deposit. • 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.
<i>Geology</i>	• The Munglinup area comprises Archean to Paleoproterozoic, metamorphosed granitic and other metamorphic rocks of the Albany–Fraser Orogen, typically hornblende ($\pm$ 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 characterized as a type 1, disseminated flake graphite in silica-rich meta-sediments deposit.
<i>Drill hole Information</i>	• This information is included in previous Company ASX Announcements including those release on 11 September 2017, 13 September 2017 and 8 February 2018. • The coordinates for the holes used in the metallurgical testwork have been previously reported as stated in the bullet point above and 2018 diamond drill holes are tabulated below.
<i>Data aggregation methods</i>	• The bulk sample / new master composite that was produced for the metallurgical testwork and subsequent production of marketing and further downstream testwork concentrate samples was representative of the modelled orebody in that the grade distribution and material types matched the overall mineralisation modelled • A nominal 6% TGC cut-off was used to select the diamond samples used to produce the bulk sample. All remaining core was used in creation of this sample.
<i>Relationship between mineralisation widths and intercept lengths</i>	• Inclined diamond drilling (HQ3) was done to try and intersect the different graphite zones as close to true width as possible. The intercept widths are nevertheless apparent (down-hole) and do not represent true width. Average dip angle was 60°.
<i>Diagrams</i>	• Drill hole collar location plans and sections given in previous Company ASX Announcements including those released on 11 September 2017,



Criteria	Commentary
	13 September 2017 and 8 February 2018. Drill hole locations for the variability samples are provided in this release.
<i>Sample preparation and processing methods applied</i>	88 samples were selected from remaining $\frac{3}{4}$ diamond drill cores from lithologically continuous graphitic sections of holes in Halberts Main (GDH001, GHD002, MDH002 and MDH003) and Halberts South (GHD004 and MHD001). - The total sample size was around 550kg and utilised predominantly $\frac{3}{4}$ remaining core but also included some coarse reject sample from the original $\frac{1}{4}$ core assays. - The samples were crushed to minus 3.35mm and assayed for Total Carbon (TC), Total Graphitic Carbon (TGC), SiO₂ and S. - For the flotation tests, a 1kg sub-sample was stage ground in a rod mill to 100% passing 1mm. The feed material was deslimed at 25 microns in some tests but not deslimed in other tests. The samples were then underwent rougher flotation. The rougher concentrate underwent multiple stages of cleaning (5-6), with recleaning and intermediate screening of coarse material in some tests. - The concentrates produced were assayed for Total Carbon, Total Graphitic Carbon (TGC), SiO₂, and S.

List of Diamond Drill Core Intervals used to produce the Bulk Sample / New Master Composite use in the current testwork

HOLE_ID	From (m)	To (m)	Length	%TGC
MDH003	23.75	23.95	0.20	11.85
MDH003	23.95	24.45	0.50	22.70
MDH003	24.45	26.75	2.30	15.85
MDH003	26.75	27.25	0.50	8.99
MDH003	35.45	35.95	0.50	14.50
GDH001	7.78	8.46	0.68	7.00
GDH001	11.00	12.40	1.40	7.30
GDH001	13.40	14.90	1.50	6.31
GDH001	14.90	15.70	0.80	19.50
GDH001	15.70	17.20	1.50	17.25
GDH001	17.20	17.50	0.30	22.80
GDH001	17.50	18.50	1.00	20.60
GDH001	18.50	19.30	0.80	10.90
GDH001	24.60	26.20	1.60	14.85
GDH001	26.20	27.70	1.50	19.95
GDH001	27.70	29.20	1.50	19.10
GDH001	29.20	30.80	1.60	18.15
GDH001	30.80	32.00	1.20	12.35
GDH001	34.40	35.90	1.50	18.80

**MINERAL COMMODITIES LTD**

ABN 39 008 478 653

Email: info@mncom.com.auWeb: www.mncom.com.au

HOLE_ID	From (m)	To (m)	Length	%TGC
GDH001	35.90	37.40	1.50	30.90
GDH001	38.50	39.00	0.50	18.15
GDH001	39.00	39.40	0.40	9.14
GDH001	42.00	43.00	1.00	28.50
GDH001	43.00	44.20	1.20	23.80
GDH001	45.60	46.50	0.90	9.66
GDH001	56.00	57.00	1.00	10.75
GDH001	58.50	59.40	0.90	30.20
GDH001	59.40	60.00	0.60	15.55
GDH001	68.25	69.40	1.15	12.40
GDH001	69.40	69.80	0.40	14.55
GDH001	76.20	76.90	0.70	8.14
MDH002	6.30	7.20	0.90	7.37
MDH002	15.80	16.70	0.90	9.08
GDH002	5.50	6.50	1.00	11.15
GDH002	11.00	11.70	0.70	14.40
GDH002	11.70	13.20	1.50	10.65
GDH002	13.20	14.30	1.10	12.10
GDH002	14.30	15.80	1.50	24.70
GDH002	25.50	27.00	1.50	9.69
GDH002	27.00	28.30	1.30	11.80
GDH002	36.10	37.50	1.40	11.35
GDH002	41.70	43.20	1.50	9.81
GDH002	43.20	44.80	1.60	11.70
GDH004	0.00	1.50	1.50	7.26
GDH004	1.50	2.30	0.80	12.60
GDH004	3.50	4.50	1.00	12.50
GDH004	4.50	5.90	1.40	18.95
GDH004	4.50	5.90	1.40	18.25
GDH004	5.90	7.40	1.50	16.05
GDH004	7.40	8.30	0.90	9.52
GDH004	8.30	9.80	1.50	7.76
GDH004	8.30	9.80	1.50	7.92
GDH004	9.80	10.60	0.80	9.22
GDH004	10.60	11.30	0.70	16.15
GDH004	11.30	12.80	1.50	20.50
GDH004	12.80	14.30	1.50	13.50
GDH004	14.30	15.30	1.00	14.60
GDH004	15.30	16.80	1.50	13.70
GDH004	16.80	17.90	1.10	19.55
GDH004	16.80	17.90	1.10	16.30

**MINERAL COMMODITIES LTD**

ABN 39 008 478 653

Email: info@mncom.com.auWeb: www.mncom.com.au

HOLE_ID	From (m)	To (m)	Length	%TGC
GDH004	17.90	19.40	1.50	10.45
GDH004	20.30	21.80	1.50	6.32
GDH004	22.80	24.00	1.20	6.10
GDH004	26.30	27.50	1.20	8.09
MDH001	1.10	2.00	0.90	6.25
MDH001	16.20	17.70	1.50	14.55
MDH001	19.70	20.40	0.70	15.15
MDH001	21.70	23.00	1.30	8.38
MDH001	26.60	27.10	0.50	17.90
MDH001	27.10	28.10	1.00	22.90
MDH001	37.00	38.00	1.00	15.80
MDH001	38.00	39.60	1.60	7.49
MDH001	39.60	41.00	1.40	15.70
MDH001	39.60	41.00	1.40	19.20
MDH001	42.30	43.60	1.30	15.30
MDH001	43.60	44.00	0.40	11.10
MDH001	44.00	45.60	1.60	22.30
MDH001	44.00	45.60	1.60	18.90
MDH001	45.60	46.60	1.00	14.70
MDH001	46.60	47.90	1.30	10.70
MDH001	47.90	48.80	0.90	12.05
MDH001	48.80	50.00	1.20	24.60
MDH001	48.80	50.00	1.20	23.60
MDH001	50.00	51.30	1.30	26.80
MDH001	51.30	51.80	0.50	22.80
MDH001	51.80	52.80	1.00	23.60
MDH001	52.80	53.80	1.00	21.40
MDH001	54.60	56.00	1.40	19.15



MINERAL COMMODITIES LTD

ABN 39 008 478 653

Email: info@mncom.com.au

Web: www.mncom.com.au

List of Diamond Drill Holes drilled at Munglinup during Phase 1, 2018 Drilling Program

Prospect	Hole_ID	Hole Type	NAT_GRID_ID	NAT_EAST	NAT_NORTH	Elevation	Survey_Method	Azimuth	Dip	Max_Depth	Drilling_Company
Halberts Main	GDH001	HQ3	GDA94-MGA Zone 51	0301528	6273008	106	GPS	258	65	80	OnQ Exploration
Halberts Main	GDH002	PQ3	GDA94-MGA Zone 51	0301568	6272723	97	GPS	250	70	48	OnQ Exploration
Halberts Main	GDH003	HQ3	GDA94-MGA Zone 51	0301655	6272842	99	GPS	85	68	50	OnQ Exploration
Halberts South	GDH004	PQ3	GDA94-MGA Zone 51	0301847	6271363	83	GPS	245	75	41	OnQ Exploration
Halberts South	GDH005	PQ3	GDA94-MGA Zone 51	0301901	6271363	85	GPS	55	68	43	OnQ Exploration
Halberts South	MDH001	PQ3	GDA94-MGA Zone 51	0301888	6271304	84	GPS	18	63	56	OnQ Exploration
Halberts Main	MDH002	PQ3	GDA94-MGA Zone 52	0301646	6272593	92	GPS	93	72	54	OnQ Exploration
Halberts Main	MDH003	PQ3	GDA94-MGA Zone 53	0301450	6273137	100	GPS	242	67	37	OnQ Exploration