



# **EM Survey Identifies Priority Graphite Targets**

Comet Resources Ltd (Comet or the Company) (ASX:CRL) is pleased to announce that the aerial electromagnetic survey (EM) over the Springdale Graphite Project in southern West Australia has successfully identified numerous graphite targets.

Multiple high-conductivity targets identified by the EM survey are in close proximity to the defined Springdale graphite JORC Resource and form high priority targets for drill testing.

# **Highlights**

- Priority graphite targets identified in close proximity to Resources
- Numerous high conductance basement graphite exploration targets successfully identified below shallow surface cover
- EM clearly delineates graphite-bearing stratigraphy and will optimise exploration efficiency by targeting high-grade, near-surface graphite

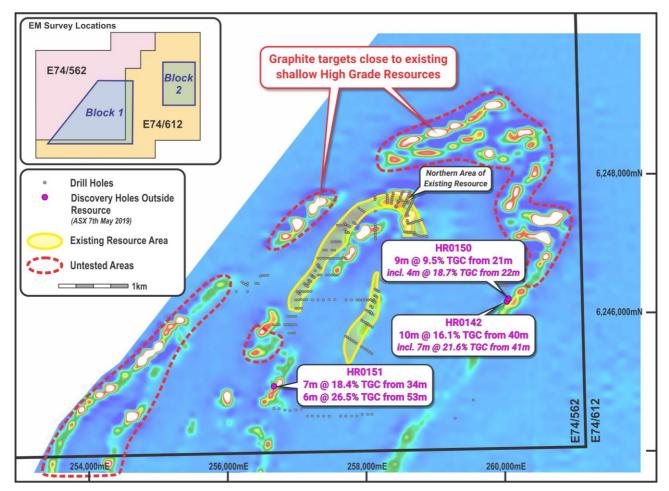


Figure 1 – EM Channel 24 (Z Component) image of Springdale Block 1. **Showing high priority graphite** targets in close proximity to existing resource areas, additional graphite stratigraphic targets and recent discovery holes outside the existing resource.

Sonu Cheema

COMPANY SECRETARY AND CFO





## Comet Resources CEO, Philippa Leggat, commented:

"EM has again been demonstrated as a powerful tool for us to target shallow, high-grade graphite mineralisation, increasing the capital efficiency of our exploration. The priority targets closest to the shallow, high-grade areas of our existing Inferred Resources of 2.6Mt @17.5% TGC (ASX 6 Dec 2018) is where we will focus.

"Our recent diamond drilling program centred around the fold closure in the northern area of the resource. The strength of the EM response in this area (figure 1) is interpreted to reflect the relatively shallow, flat-dipping geometry of the high-grade graphite units as seen in previous drilling. We are excited to see the new results as they become available over the coming weeks."

### EM Survey

A 530.9 line-kilometre helicopter-borne EM survey was completed by CGG Aviation over two blocks at Springdale between the 26th and 28th August 2019. Flight lines were flown east-west at 100m spacing which is approximately perpendicular to the majority of stratigraphy.

The new EM survey clearly defined the outline of the Springdale graphite JORC Resource and has also successfully identified multiple conductive graphite bedrock anomalies as high amplitude responses in the late-time EM within the block 1 survey area. These targets are in close proximity to the existing Resource as well as along, the now clearly defined, prospective stratigraphy in the wider licence area (Figure 1).

The block 1 survey area was flown over the main Springdale graphite project licence that hosts an Inferred Resource of 15.6Mt @ 6% Total Graphitic Carbon (TGC), including a high-grade portion of 2.6 million tonnes at 17.5% TGC (ASX 6 Dec 2018). The majority of defined resources are situated within 60 metres of surface.

The highest graphite grades defined within the Resource correlate to the axis of the North Zone shallow-plunging synclinal fold closure. The EM survey has identified a number of new, similarlooking fold geometries in close proximity to the Resource that are untested.

The strength of the graphite conductor response in this area is interpreted to reflect the relatively shallow, flat-dipping geometry of the high-grade graphite units as seen in previous drilling and makes them high priority targets for future drilling.

In addition to the targets in close proximity to the existing resources, the survey also delineated numerous new targets within the project licence that clearly reflect the folded geometry of the prospective target graphite stratigraphy.

High grade graphite intersected in earlier drilling directly correlates with new EM anomalies. Hole HR0150, drilled to the east of the North Zone intersected, 9m @ 9.5% TGC from 21m (including 4m @ 18.7% from 22m).

Hole HR0151, drilled to the south of the West Zone, intersected 7m @ 18.4% TGC from 34m and 6m @ 26.5% TGC from 53m (See figure 1).

The smaller block 2 EM survey area was designed to target a potential fold closure repeat identified by areomagnetics to the east of the graphite project. No basement conductor anomalies were identified, and the area is no longer considered a graphite target.

The survey was flown using the HeliTEM 35C2 EM system, which is the only system operating at 6.25Hz base frequency. The system uses a breakthrough, large-diameter, ultra-low noise receiver, and a very-low frequency, square-wave transmitter pulse, to provide improved detection of high conductance targets. The low base frequency is also an advantage in areas with high





surface conductivities allowing later time conductors to be identified as successfully demonstrated by this survey.

The recent survey has again confirmed the ability of the EM system to identify basement graphite targets below conductive cover and is a very powerful exploration tool.

With the recent metallurgical program now complete and analytical results awaited, attention will focus on modelling and ranking the EM targets for future drilling, with those in close proximity to the existing resource areas a priority.

## For further information please contact:

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# About the Springdale Graphite Project in Western Australia

The 100% owned Springdale graphite project is located approximately 30 kilometres east of Hopetoun in south Western Australia. The project is situated on freehold land, with good access to infrastructure being within 150 kilometres of the port at Esperance via sealed roads.

The tenements lie within the deformed southern margin of the Yilgarn Craton and constitute part of the Albany-Fraser Orogen. Comet owns 100% of the two tenement's (E74/562 and E74/612) that make up the Springdale project.







## Key information on the Springdale Graphite Project

- Comet completed a first pass aircore drilling program in February 2016, which confirmed that graphite was present (Western Zone).
- In September 2017 a 220km<sup>2</sup> detailed aeromagnetic survey was conducted (ASX 10 Nov 2017). Interpretation delineated 26 kilometres of stratigraphy deemed to be prospective for graphite mineralisation. Less than 20% of the identified stratigraphy has been drill tested indicating the potential scale of the Project.
- The Northern Zone was defined as a high priority drill target. RC drilling completed between December 2017 and February 2018 was successful in identifying high grade graphite mineralisation in the Northern Zone.
- Comet released a Maiden Resource (Table 1) at the Springdale Graphite Project late 2018 that incorporated the Northern, Western and Eastern Zones (ASX 6 Dec 2018).
- The high-grade portion of the resource is 2.6Mt at 17.5% Total Graphitic Carbon (TGC) (Table 1).
- Metallurgical test work in April 2017 proved that graphene can be produced from Springdale graphite by electrical exfoliation. It is very rare for a graphite deposit to be able to produce graphene using the exfoliation method on solid, untreated rock.
- The discovery of two new high-grade zones of graphite mineralisation was announced in May 2019. The results of the drilling program confirmed that electromagnetic surveys could be used as a targeting tool for shallow, high-grade graphite mineralisation (ASX release 7 May 2019).





# **Appendices**

### Forward-Looking Statements

This document includes forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning Comet Resources Limited's planned exploration programs, corporate activities and any, and all, statements that are not historical facts. When used in this document, words such as "could," "plan," "estimate," "expect," "intend," "may", "potential," "should" and similar expressions are forward-looking statements. Comet Resources Limited believes that its forward-looking statements are reasonable; however, forward looking statements involve risks and uncertainties and no assurance can be given that actual future results will be consistent with these forward-looking statements. All figures presented in this document are unaudited and this document does not contain any forecasts of profitability or loss.

### **Competent Persons Statement**

The information in this report that relates to Mineral Resources is based on information compiled by Matthew Jones, who is a Competent Persons and Member of The Australasian Institute of Mining and Metallurgy. Matthew Jones is a consultant and was previously Exploration Manager of the Company. He has sufficient experience that is relevant to the style of mineralisation and type of deposit 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". Matthew Jones consents to the inclusion in this report of the matters based on their information in the form and context in which it appears.

The information in this report that relates to Exploration Results and Exploration Targets is based on information compiled by Bianca Manzi, who is a Member of The Australian Institute of Geoscientists and a part time consultant to Comet Resources Ltd. Ms Manzi has sufficient experience that is relevant to the style of mineralisation and type of deposit 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". Ms Manzi consents to the inclusion in this report of the matters based on their information in the form and context in which it appears.

### No New Information

To the extent that this announcement contains references to prior exploration results and Mineral Resource estimates, which have been cross referenced to previous market announcements made by the Company, unless explicitly stated, no new information is contained. The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcements and, in the case of estimates of Mineral Resources that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

#### Table 1

Springdale Project Resource Estimate reported at a >=2% TGC cut-off grade

Domain	Tonnes (Mt)	Density (t/m³)	Graphite (TGC%)	JORC Classification
High grade	2.6	2.1	17.5	Inferred
Low grade	13.0	2.2	3.7	Inferred
Total Resources	15.6	2.2	6.0	Inferred

Note - Inferred Resources have only been reported from within mineralised wireframe domains defined by a nominal 2% TGC cut-off for low-grade and a nominal 15% TGC cut-off for high-grade to a nominal depth of 100m.

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### SPRINGDALE GRAPHITE PROJECT

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### Appendix A

JORC Code, 2012 Edition - Table 1 Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>Exploration tenements E74/562 and E74/612 are current and 100% owned by Comet Resources Ltd.</li> <li>The licences are over freehold land with sealed road access 20km away.</li> <li>The company is not aware of any impediments relating to the licence or area.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Unpublished and verbal reports of graphite mineralisation encountered in shallow calcrete/limestone drilling and extractive industry operations at the Springdale Project.
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>The Springdale Project overlies an underexplored remnant Archaean greenstone belt within the Archaean Munglinup Gneiss.</li> <li>The greenstone belt (Jerdacuttup Greenstone Belt) is located within the deformed southern margin of the Yilgarn Craton and constitutes part of the Northern Foreland lithotectonic unit of the Albany-Frazer Orogen.</li> <li>Graphite mineralisation is hosted within metamorphosed Archaean mafic, granitic and sedimentary rocks.</li> <li>A high-resolution aeromagnetic survey flown in September 2017 showed that stratigraphy is tightly folded with NE-trending fold axes and that graphite-rich stratigraphy is strongly associated with units of low magnetic response in the project area. Drilling has revealed that the graphite-rich stratigraphy is part of a kilometre-scale syncline with the western limb striking at around 034° and dipping moderately (around 50°) to the SW and the eastern limb striking at around 176° and dipping shallow to moderately (around 30°) to the SE. The dip of stratigraphy in the fold hinge shallows significantly to 15°-20° to the south.</li> </ul>
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	No new drilhole information is discussed in this report. Previous drilling has been reported as listed in the below sections.
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples</li> </ul>	No new drilling information reported

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Relationship between mineralisation widths and intercept lengths	<ul> <li>of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	• /	Not applicable
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.		Relevant maps are included in the body of his report.
Balanced reporting	<ul> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	• ^	Not applicable
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	• F in	Targeted airborne EM surveys were flown over 2 areas for a total of 530.9 line cilometres by CGG Aviation. Data from one area is used in this report as the other had no bedrock conductor responses and is not a graphite target.  Previous announcements by the company include a maiden JORC 2012 graphite resource (ASX 6/12/2018)  Graphite characterisation results (ASX: 29/06/2016), and initial graphene metallurgy ASX: 4/04/201, 10/01/2018, and 17/09/2018).  Drill assay results (6/04/2016, 27/09/2016, 27/11/2016, 15/11/2016, 9/02/2017, 15/19/2017, 10/11/2017, 10/11/2017, 10/11/2017, 10/11/2017, 10/11/2017, 10/11/2017, 10/11/2017, 10/11/2017, 10/11/2017, 10/11/2017, 10/11/2017, 10/11/2018, 8/5/2018, 2/10/2018, 17/04/2018, 8/5/2019, 2/10/2018, 17/05/2019, and 18/6/2019).
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	• F 9 n	Exploration drilling will be ongoing. Further holes are planned to test targets generated through the HeliTEM survey and metallurgical characterisation of graphite is also underway.