

6<sup>th</sup> November 2017

## Spectacular Diamond Drilling Results at Springdale Project, Western Australia

### Highlights:

- HD018 discovers new high grade graphite zone 1km east of the main zone at Springdale;
- Discovery intersection of 11 metres at 25.6% TGC including 9 metres at 30.2% TGC;
- Highest 1 metre intersection to date of 44.8% TGC;
- HD018 also intersected 5.6 metres at 7% TGC, 2.6 metres at 5.3% TGC and 4.6metres at 15.8% TGC;
- Interpreted shallow dip means a significant increase in tonnes per vertical metre;
- Exfoliation test work has commenced with exceptional visual results.



Cut Core from 55 metres



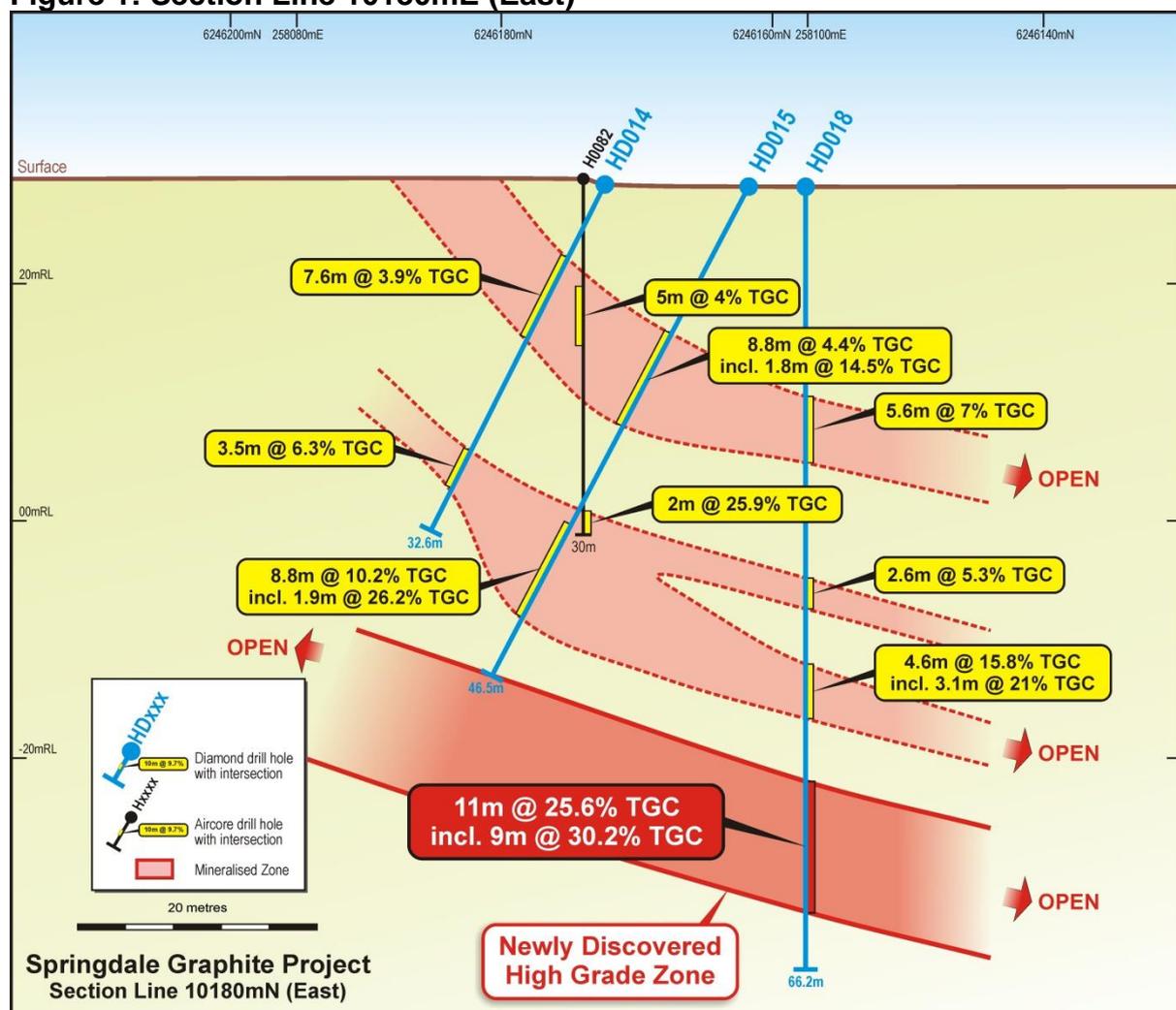
Exfoliation of Core from HD0018

Comet Resources Limited (ASX: CRL) (Comet) recently conducted a large diameter (PQ) diamond drilling program at the Springdale Graphite Project in Western Australia. The first drill hole (HD018) from the program intersected a new and very high grade graphite zone beneath existing mineralization (figure1). HD018 was drilled 1km east of the main graphite zone at Springdale (figure 2).

Results from this discovery hole include:

- 5.6 metres @ 7% Total Graphitic Carbon (TGC) from 15.5 metres,
- 2.6 metres @ 5.3% TGC from 33.3 metres,
- **4.6 Metres @ 15.8% TGC from 39.8 metres including 3.1 metres @ 21% TGC** and
- **11 metres @ 25.6% TGC from 49.4 metres including 9 metres @ 30.2% TGC (new high grade zone).**

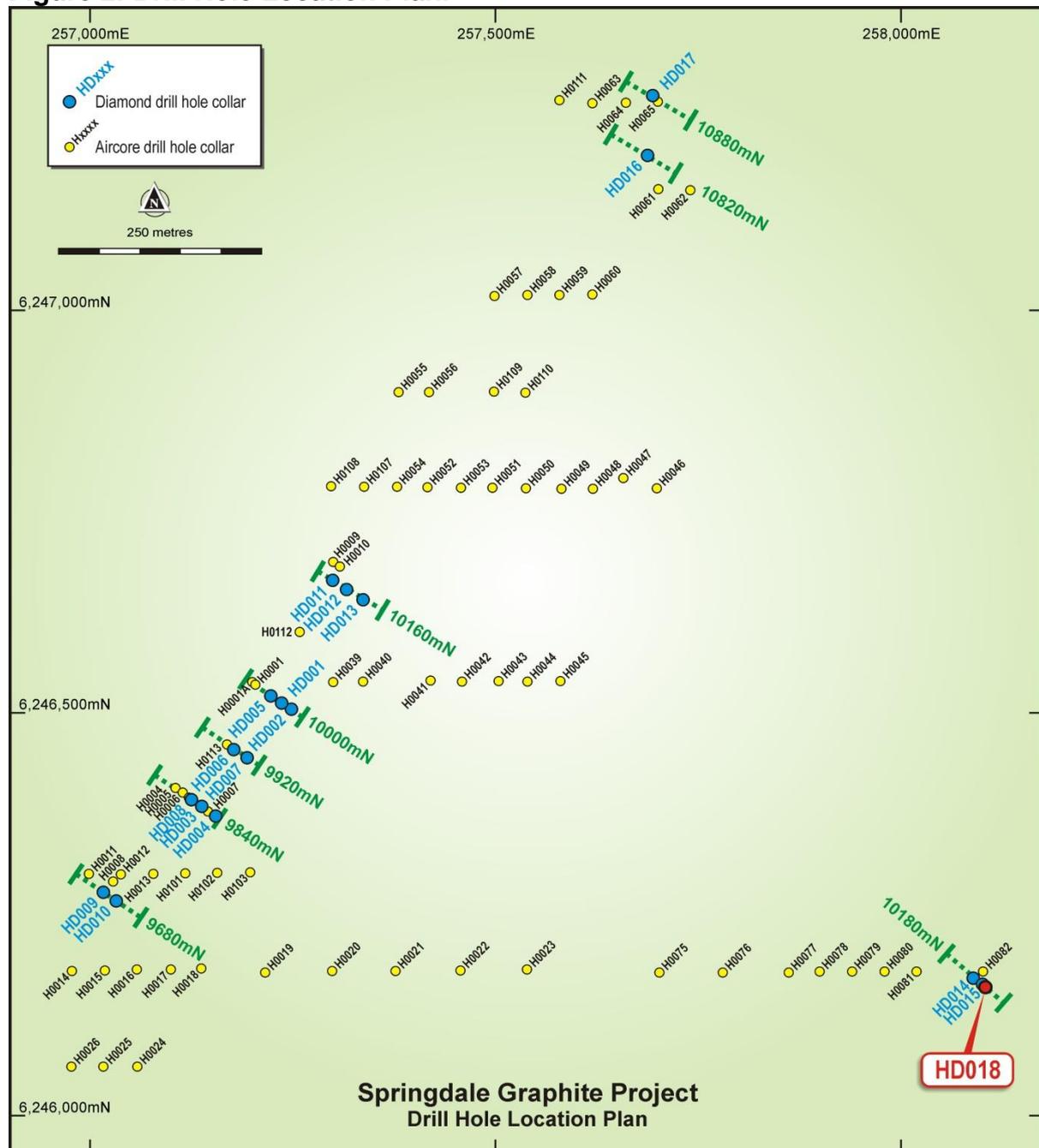
**Figure 1: Section Line 10180mE (East)**



HD018 was drilled to a greater depth following a review of HD015 core which indicated the potential of additional graphite mineralisation at the end of hole (figure 1). The newly discovered high grade graphite mineralisation, has a shallow interpreted dip (less than 30 degrees). This combined with the multiple horizons located above this

high grade zone, suggests the potential for a low strip ratio in any future mining operation.

**Figure 2: Drill Hole Location Plan.**



The core trays (figure 3 to figure 6) cover the 9 metres @ 30.2% TGC (new discovered zone) demonstrates the consistency of this high grade graphite mineralisation.

**Figure 3: Tray 21 - 51 meters to 53.2 metres - 3.2 metres @ 18.9% TGC**





Diamond core from HD018 is already undergoing metallurgical test work with several 10cm  $\frac{1}{4}$  core sections being used to set up the base line test before moving on to the  $\frac{1}{2}$  core. The core is subjected to a technique called exfoliation, which suspends the core in a conductive chemical solution and then runs a charge through it to liberate graphene. (Figure 7).

Visually the exfoliation test work is looking very exciting. The dark colour of the solution with bright flashes (like a shoal of fish) is believed to be a very positive observation for the production of graphene from exfoliation of graphite.



**Figure 7: Exfoliation of core from HD018.**

This exfoliation process utilised Springdale graphitic rock as it was extracted from the ground (in this case diamond core) with no crushing or grinding. The exfoliation method is used to peel graphene flakes from the graphite in the core. The graphene particles are then separated from the product produced by exfoliation using a series of additional steps.

It is very rare for a graphite deposit to be able to produce graphene using the exfoliation method. Graphene production is normally expensive to scale up, however the exfoliation method is believed to be a lower cost and scalable process.

HD018 was a vertical PQ diamond hole drilled at 6,246,160m N and 258,105m E to a depth of 66.2m.

The recently completed diamond drill program also tested the depth extension to hole **HD016 which intersected 15.5 metres @ 7.5% TGC and 14 metres @ 6.6% TGC, representing approximately 30 metres of graphite mineralisation in one hole (figure 8)**. HD016 was drilled in the previous diamond drill program at the Springdale Project (completed July 2017) to further test the extension of graphite mineralisation to the north. Shallow aircore reconnaissance drilling intersected graphite mineralisation, including **13 metres @ 10.9% TGC & 10.8 metres @ 7.6% TGC**. Diamond drilling has confirmed significant thicknesses of graphitic material, assay results are pending and expected in the next few weeks.

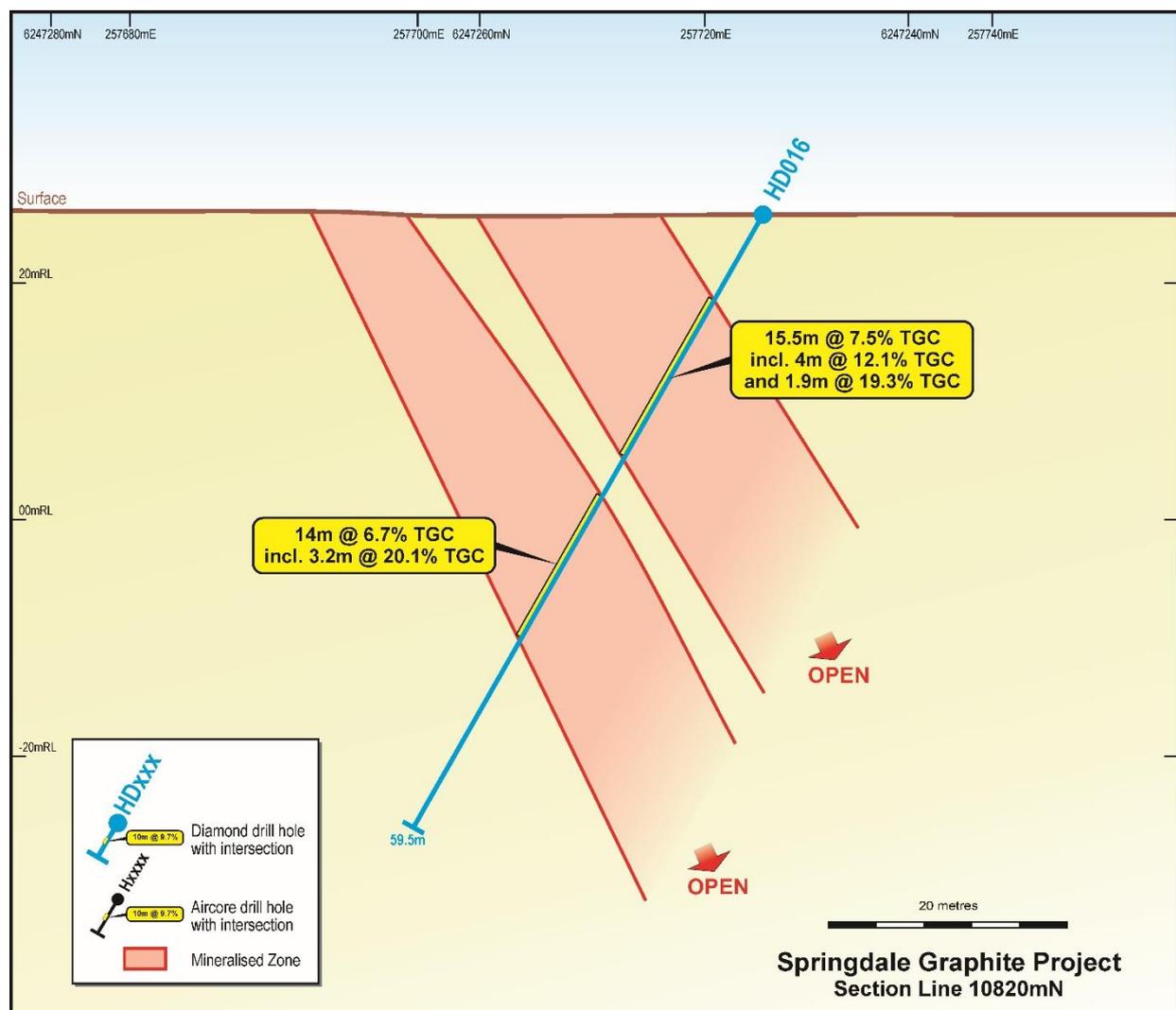


Figure 8: Section Line 10820mE.

## **Moving Forward**

Comet plans to progress the assessment of the graphite and graphene at Springdale Project through the following work programs:

*Detailed Aeromagnetic survey* – A detailed aeromagnetic survey has been completed and is currently being interpreted. Interpretation of this survey will help define target graphite horizons in preparation for future drilling campaigns.

*Metallurgical Testwork* – Metallurgical testwork on samples generated in the recent diamond drill program has already commenced. This PQ core will allow for more detailed work on selected graphite zones. Understanding the amenability of the graphite at Springdale to convert to graphene or be used in battery and other technologies is an integral part of understanding and realising its commercial value.

*Aircore/RC Drilling* – An aircore / reverse circulation drill program is planned to commence in the last quarter of the calendar year. Comet has received funding approval from the Western Australian government for up to \$100,000 to assist with this work.

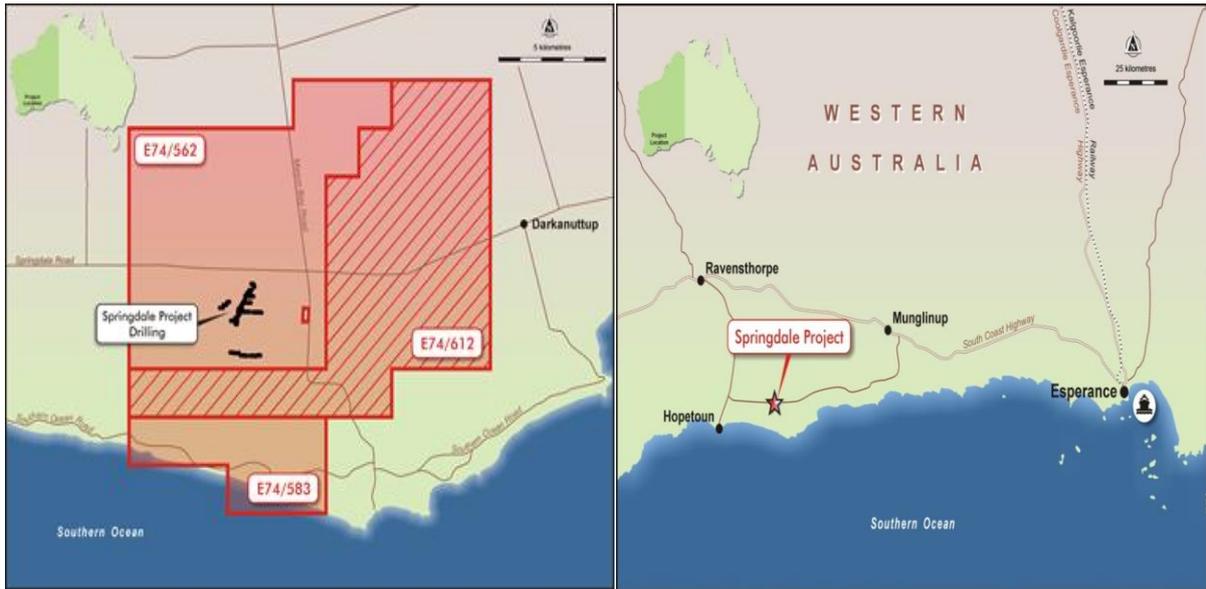
## **Background**

Comet's Springdale project is located approximately 30 km east of Hopetoun, Western Australia. The tenements lie within the deformed southern margin of the Yilgarn Craton and constitute part of the Albany-Fraser Orogen. The tenement is over freehold land with sealed road access within 20km and is located approximately 150km from the port of Esperance.

Comet owns 100% of the three tenement's E74/562, E74/583 and E74/612 that make up Springdale project. The total land holding at Springdale is approximately 220 square kilometres.

Comet completed a successful first pass aircore drilling program in February 2016. This program confirmed that graphite was present in a prospective zone/horizon. Comet has now drilled 113 aircore holes for 2,901 metres and 20 diamond holes for 972 metres.

Comet discovered in April 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.



**Figure 9: Plan Showing Location, Tenements and Area Drilled to date**

For further information please contact:

**Mr Tony Cooper**

Comet Resources Limited

Tel (08) 9466 7770

Email [tony.cooper@cometres.com.au](mailto:tony.cooper@cometres.com.au)

Web Page [www.cometres.com.au](http://www.cometres.com.au)

*Comet listed on the Australian Stock Exchange in 1994. The Company discovered and studied the Ravensthorpe Nickel Project. In 2001 Comet successfully sold its final equity to BHP Billiton and returned to Comet shareholders \$32 million. Comet has a number of exciting projects that it is currently exploring and advancing. Comet has cash assets of approximately \$1.6 million and has approximately 170.5 million shares on issue.*

*The information in the report to which this statement is attached relates to Exploration Results, Mineral Resources or Ore Reserves compiled by Mr. A Cooper, who is a Consultant and director to Comet is also a Member of The Australian Institute of Mining and Metallurgy, with over 30 years' experience in the mining industry. Mr. Cooper has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and to the activity, which he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the "Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Cooper consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

## JORC Table 1

### Section 1 Sampling Techniques and Data

Criteria	Explanation
<i>Sampling techniques</i>	Diamond drilling produced samples that were cut into ½ core one side of ½ core was cut to produce two sections of ¼ core. The ¼ core was sampled to produce an approximate two kilogram sample, which is considered representative of the full drill metre. This is considered to be an industry standard. Sampling was guided by qualified field personnel. Samples were submitted to ALS Laboratories in Perth. Samples were analysed for Graphitic Carbon.
<i>Drilling techniques</i>	Springdale Diamond drilling program comprised 3 drill holes which were completed by ONQ Exploration Solutions using a Desco 7000 rig. Triple tube PQ core was recovered.
<i>Drill sample recovery</i>	Overall recoveries were good.
<i>Logging</i>	Geological logging of the drill core was recorded for all holes, including lithology, mineralogy, grainsize, texture, weathering, oxidation, colour and other features of the samples. Drill core were not logged to any geotechnical standard and the data is insufficient to support Mineral Resource estimation at this stage. The drill holes were logged in full to the end of the hole.
<i>Sub sampling techniques and sample preparation</i>	Check and repeat samples have been submitted for analysis. Each sample was weighed at the preparation laboratory and the weights recorded along with analytical results. No specific quality control procedure has been adopted for the collection of the samples. Samples were shipped to ALS laboratories in Perth WA for drying, pulverizing and splitting to prepare a pulp of approximately 200 grams which was analysed at ALS Laboratories in Brisbane Qld. The sample sizes are considered to be appropriate to correctly represent the sought after mineralisation style.
<i>Quality of assay data and laboratory tests</i>	Average sample weight submitted for prep was 2kg with a range from 1kg to 3kg. Analysis was by CSA05V Graphitic Carbon, LECO Method. Samples were dried crushed and pulverised to minus 75 microns. This is an accepted industry analytical process appropriate for the nature and style of mineralisation under investigation. Company generated blanks or standards were incorporated into the sampling procedure. ALS undertook their own internal checks and blanks.
<i>Verification of sampling and assaying</i>	No verification work has been conducted yet. This will be in the forward work program now that the analytical results from this initial sampling are known. No independent or alternative company has yet been engaged to verify results.
<i>Location of data points</i>	All drill hole sites have been located using a Navcon SF-3050 unit used for DGPS/DGNSS surveying and cross checked onto aerial photographs where relevant. The recorded locations used the MGA94 zone 51 datum and accuracy is limited to approx. 10 cm.

Data spacing and distribution	3 Diamond holes were completed. The spacing between these holes varied as indicated by the drill location image included in the body of the accompanying report. This drill data is not being used for estimating a Mineral Resource or modelling of grade at this stage in exploration. No sample composting was applied.
Orientation of data in relation to geological structure	The orientation of Comet's drilling was designed to intersect the target zone at right angles in an attempt to minimise the risk of biased sampling. The orientation of the drilling is deemed sufficient at this stage of exploration.
Sample security	All samples were collected in calico sample bags with sample number identification on the bag. Bags were then checked and submitted to ALS sample preparation in Perth WA by Comet staff. Security over sample dispatch is considered adequate for these samples at this time.
Audits or reviews	No audits or reviews have yet been conducted on the exploration data presented in this release.

## Section 2 Reporting of Exploration results

Criteria	Explanation
<i>Mineral tenements and land tenure status</i>	The Exploration license is current and 100% owned by Comet Resources Ltd. There are no outstanding issues regarding access or ownership on the targeted land.
<i>Exploration done by other parties</i>	Unpublished and verbal reports of graphite mineralisation encountered in shallow calcrete/limestone drilling and extractive industry operations at the Springdale Project.
<i>Geology</i>	Archaean greenstone belt and the surrounding Archaean Munglinup Gneiss which encapsulates the Belt. The 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. Two different mineral deposit models are proposed: <ul style="list-style-type: none"> <li>a) Archaean style gold, nickel copper mineralisation in remnant greenstone and reworked Yilgarn Craton rocks; and</li> <li>b) Graphite mineralisation within metamorphosed Archaean granitic and sedimentary rocks.</li> </ul>
<i>Drill hole Information</i>	Drilling details are in the main body of this announcement.

<i>Data aggregation methods</i>	<p>Reported intersections are based on a weighted average of diamond sample intervals. These intervals vary as sampling was conducted to honour geological boundaries. Samples are not less than 0.2 metres or more than 2 metres in length. No upper cuts are applied. Internal dilution of up to 3 metres has been incorporated in intersection calculations. No metal equivalents have been used in this report.</p> <p>A lower cut-off grade of 1% TGC has been used and nominal 3 metre waste (below 1%) has been included in extended intervals. Higher grade intercepts use a cut-off of 15% TGC.</p> <p>Sample recovery in the highly weathered portion of some holes was low (&lt;80%). Loss of recovery often coincided with interpreted high-grade graphite zones (as defined from previous drilling). Where sample loss was within a mineralised zone and there was reasonable expectation that the material was also graphitic an average grade of the sample above and below the core loss zone was applied to the interval to give a realistic intersection. The percentage recovery provided for each calculated intersection gives an indication of the confidence of the intersection.</p>
<i>Relationship between mineralisation width and intercept lengths</i>	<p>There is insufficient understanding of the bedrock geology at present to determine the true thickness of any reported drill intersections. Any intersections included in this report are downhole lengths. The true widths of these intersections are not known.</p>
<i>Diagrams</i>	<p>Appropriate maps and sections are included in the body of this report.</p>
<i>Balanced reporting</i>	<p>The accompanying document is considered to represent a balanced report. Further evaluation into the significance of these results is ongoing.</p>
<i>Other substantive exploration data</i>	<p>Other exploration data collected by the Company is not considered as material to this report at this stage. Further data collection will be reviewed and reported when considered material.</p>
<i>Further work</i>	<p>These results will need to be verified in the field and duplicate test work conducted to ensure repeatability. In addition more drilling will need to be done to determine the extent of the graphite mineralisation. Initial metallurgical and crystal size test work will also need to be conducted to give first indications of the potential to recover Graphite identified within the mineralised rocks.</p>