EXPLORATION TARGET FOR KOREAN FLAKE-GRAFITE PROJECTS

- Exploration Target defined for 100% owned and granted Gapyeong, Yongwon and Eunha North, Flake-Grafite Projects in South Korea
- Drilling access agreements signed with local private landholders to drill the flagship, high-grade, Gapyeong Grafite Project and target a maiden Mineral Resource
- Gapyeong bulk-sample to be processed to concentrate for down-stream spherical grafite test work

Peninsula Mines Ltd (ASX:PSM) has set a significant and high-grade, flake-grafite, Exploration Target estimate of 13 to 17 million tonnes grading 8% to 11% Total Grafitic Carbon (TGC) and containing 1.1 to 1.7 million tonnes of grafite for its 100% owned and granted Gapyeong, Yongwon and Eunha North, Flake-Grafite Projects in South Korea (see inset Figure 1 for location). The potential quantity (tonnage and contained grafite) and grade of the Exploration Target is conceptual in nature. There has been insufficient exploration work conducted to estimate a Mineral Resource and it is uncertain if further exploration will result in the definition of a Mineral Resource at any of the Company’s grafite projects.

The Exploration Target estimate is summarised in Table 1 below and has been determined using a combination of exploration data, that includes, mapping and surface channel sampling\(^{D1,D2,D4}\), geophysical modelling of electromagnetics (EM) data\(^{D9,D10,D15}\) and initial drilling at Eunha North\(^{D2}\), that verified the correlation between channel sampling and EM modelling.

**Table 1: Exploration Target Estimates for Peninsula’s Flake-Grafite Projects in South Korea**

<table>
<thead>
<tr>
<th>Project</th>
<th>Tonnes (Approximate)</th>
<th>Grade (TGC)</th>
<th>Graphite Tonnes (Approximate)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>Eunha North</td>
<td>750,000</td>
<td>1,000,000</td>
<td>2%</td>
</tr>
<tr>
<td>Gapyeong South</td>
<td>8,000,000</td>
<td>10,500,000</td>
<td>8%</td>
</tr>
<tr>
<td>Gapyeong Middle</td>
<td>1,500,000</td>
<td>2,000,000</td>
<td>8%</td>
</tr>
<tr>
<td>Gapyeong North</td>
<td>1,000,000</td>
<td>1,250,000</td>
<td>7%</td>
</tr>
<tr>
<td>Yongwon</td>
<td>1,750,000</td>
<td>2,250,000</td>
<td>8%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>13,000,000</td>
<td>17,000,000</td>
<td>8%</td>
</tr>
</tbody>
</table>

The next stage of the programme is to drill define the grafitic units at the flagship Gapyeong Grafite Project, which represents 85% of the overall Exploration Target estimate.

Drilling access agreements have now been signed with two key private landholders at Gapyeong and, subject to the approval the local Gapyeong-gun Council, this will allow initial drilling to target a core 240m strike length near the centre of the 1,000m mapped strike extent of the targeted Gapyeong grafitic units.

This central zone corresponds with the most intense EM anomalies at Gapyeong\(^{D9}\), from where the thick and high-grade channel sampling results were recently released\(^{D1}\) (see Figure 1).

Modelling of the EM conductors and mapping of the grafitic units at Gapyeong indicates the two parallel, high-grade, grafitic units have been folded into a synformal structure (see 3-dimensional model, Figure 2).
“The thickness, high-grade, and steeply dipping geometry of the Gapyeong graphitic units indicates they may be amenable to both open pit and subsequent underground mining, and this potentially underpins our business model of supplying high quality graphite to the South Korean lithium-ion battery industry”, Peninsula’s Managing Director, Jon Dugdale, said.

The Exploration Target has been extended to the projected depth of the synformal fold structure, up to 350m vertical depth (see Table 2 for dimensions).

Figure 1: Gapyeong Project, rockchip/channel sample locations, EM anomalies and Exploration Target locations

The recent results of the Eunha Graphite Project (see inset Figure 1 for location) drilling and channel sampling programmes will be further evaluated prior to any decision being made to complete any additional drilling at the Eunha North and/or Eunha Roadhouse Prospects. Further drilling at Eunha is considered a lower priority than drilling of the higher-grade Gapyeong and Yongwon Projects. The Company has an agreement in place with a key land holder at Eunha North and could resume drilling activities at any stage.

Drilling of the Yongwon Project (see inset Figure 1 for location) graphitic unit has been planned but is on-hold pending resolution of forest access negotiations with the Chungju City Council. Therefore, timing of approval for drilling access to the Yongwon Project remains uncertain at this stage. Should an access agreement be negotiated, an up to 23-hole diamond drill programme has been designed that would deliver drilling across five, 80m spaced, sections with 40m spaced drill holes on each section.

Metallurgical testing has achieved >95% TGC concentrate grade for all of the projects included in the Exploration Target estimate.
The Company will now initiate generation of a second, >5kg, flake-graphite concentrate sample, from the Gapyeong Project, in addition to the concentrate sample from Eunha. This sample will then be dispatched to Germany in order to carry out down-stream processing testing targeting production of 99.95% purity, uncoated, spherical-graphite\textsuperscript{D6} to meet the specifications required for lithium-ion battery production as provided by a key anode manufacturer in South Korea.

**Background to the Exploration Target for Peninsulas Korean Graphite Projects:**

Peninsula has carried out a three-stage process to generate the information required to estimate the Exploration Targets for its South Korean graphite projects.

i) The initial stage of work was mapping, rockchip/channel sampling of the graphitic units and sampling for petrographic work to confirm flake-graphite content coupled with metallurgical testing to establish the potential to produce a >95% TGC, saleable, concentrate in country.

ii) EM survey work taking advantage of the electro-conductive properties of the graphitic units as shown on Figure 1, which shows the EM anomaly associated with the sampled and high-grade graphitic units at Gapyeong that average over 10m thick and grade more than 10% TGC\textsuperscript{D1}. Southern Geoscience Consultants (SGC) have modelled the EM data to generate 3-dimensional plate models of the targeted graphitic units.

iii) Systematic channel sampling and drilling to determine thickness and grade of the graphitic units (see Figures 1, 3 and 4) was used as a calibration and comparison with the EM models. Specific gravity (SG) measurements have also been generated from drilling and channel sampling intervals to assist in the estimation of the Exploration Target.

Exploration Manager and Executive Director of Peninsula, Daniel Noonan, has interpreted the EM models in conjunction with the channel sampling and drilling data where available, to estimate volume, tonnage and grade ranges for the graphitic units.

![Figure 2: Gapyeong Graphite Project, Isometric view of the modelled graphitic units based on EM inversion and surface mapping and channel sampling](#)
Figure 3: Eunha North Graphite Prospect, Plan view of the modelled graphitic unit based on EM inversion modelling and surface mapping and diamond drilling
The tonnage ranges as shown in Table 2 below are based on volumes estimated from 3D wireframe models generated using Micromine software. These 3D models were constructed utilising available drilling, surface mapping, channel sampling data and the 3D plate EM models generated by SGC (Figures 2, 3 and 4). In the case of the Eunha North prospect the grade and structure widths were applied utilising the available data from the recent drilling coupled with the 3D EM plate models (Figure 3). At both Yongwon and Gapyeong a combination of the surface mapping, channel and rock chip sampling and the 3D EM plate models were utilised to generate 3D wireframe models to estimate conceptual structural volumes (Figures 2 and 4). A blanket specific gravity (SG) of 2.5 kg/m³ was applied utilising data generated from SG measurements taken from the recently acquired Eunha diamond drill core. A variance of +/- 10% was applied to these estimates.

The grade ranges as shown in Table 2 below are based on the range of grades produced by surface rockchip and channel sampling as well as drilling where available.

Table 2: Exploration Target Estimates including specifications and volumes for Graphite Projects in Korea

<table>
<thead>
<tr>
<th>Project</th>
<th>Tonnage (Approximate)</th>
<th>Dip Width Strike</th>
<th>Grade (TGC)</th>
<th>Graphite Tonnage (Approximate)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low  High</td>
<td>m     m m</td>
<td>Low Mid High</td>
<td>Low  High</td>
</tr>
<tr>
<td>Eunha North</td>
<td>750,000 1,000,000</td>
<td>150  5</td>
<td>500</td>
<td>2% 3% 4%</td>
</tr>
<tr>
<td>Gapyeong South</td>
<td>8,000,000 10,500,000</td>
<td>700  10</td>
<td>525</td>
<td>8% 10% 12%</td>
</tr>
<tr>
<td>Gapyeong Middle</td>
<td>1,500,000 2,000,000</td>
<td>280  10</td>
<td>250</td>
<td>8% 10% 12%</td>
</tr>
<tr>
<td>Gapyeong North</td>
<td>1,000,000 1,250,000</td>
<td>220  10</td>
<td>200</td>
<td>7% 9% 11%</td>
</tr>
<tr>
<td>Yongwon</td>
<td>1,750,000 2,250,000</td>
<td>200  10</td>
<td>400</td>
<td>8% 10% 12%</td>
</tr>
<tr>
<td>Total</td>
<td>13,000,000 17,000,000</td>
<td>8%</td>
<td>10%</td>
<td>11%</td>
</tr>
</tbody>
</table>
Sufficient information has been generated to estimate the Exploration Targets for the Gapyeong\textsuperscript{D1,D9}, Yongwon\textsuperscript{D14,D15} and Eunha North\textsuperscript{D2,D4,D10} graphitic units as shown in previous releases listed below. The Daewon graphite target has been insufficiently channel sampled to generate an Exploration Target estimate at this stage.

ENDS

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**About the Peninsula Mines Limited Graphite Business:**

Peninsula Mines Ltd (“Peninsula”) is an Australian listed, exploration/development company focused on developing opportunities for mineral discovery and production in South Korea, where the Company is well established with a network of key contacts, having worked in the Country for over five years.

South Korea is one of the world’s largest producers of lithium-ion batteries, but obtains downstream graphite products, including spherical graphite for Lithium-Ion battery anodes, predominantly from China (see value-chain below). Peninsula has identified the opportunity to mine and process graphite to produce value-added spherical graphite, in South Korea, to directly supply lithium-ion battery manufacturers and other graphite end-users in-country.

Peninsula and its subsidiaries have tenements and tenement applications in South Korea with fine to large and jumbo flake graphite identified. Peninsula intends to progress these and other projects to JORC compliant resource definition and, potentially, development of mining and flake graphite concentrate production for spherical graphite – Lithium-ion battery applications and/or expandable graphite and other markets in Korea.

Peninsula signed a Memorandum of Understanding (“MOU”) with Korean expandable graphite producer, Graphene Korea, in June 2017\textsuperscript{D13}, which envisages long-term strategic cooperation with respect to offtake of graphite concentrate and development of graphite mining and processing projects both within and potentially outside Korea.

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Note: US$ pricing from Benchmark Mineral Intelligence graphite price assessments, May – June 2018\textsuperscript{D16}.
Peninsula has also secured a Binding Supply Agreement with Canadian listed DNI Metals Inc (“DNI”). Subject to various conditions, DNI will supply up to 24,000 tonnes per year of flake graphite to Peninsula’s 100% owned subsidiary, Korea Graphite Company Limited (“KGCL”), for on-sale to Korean end-users. Peninsula and DNI are discussing options to cooperate with respect to fast-tracking the development of DNI’s large-flake graphite projects in Madagascar, which are situated close to port access and are saprolite (weathered rock) hosted - with low cost mining and processing potential.

Summary list of Peninsula ASX releases and other documents referenced in this announcement:

D1 Gapyeong High-Grade Graphite Channel-Sampling Intersections, ASX: 01/08/18
D2 Eunha Graphite Intersections Confirm Resource Targets, ASX: 27/07/18
D3 Key Tenement Granted over Gapyeong Graphite Project, ASX: 12/06/18
D4 Resource Drilling Commences at Eunha Graphite Project, ASX 31/05/18
D5 High-Purity Concentrate Result for Gapyeong Graphite Project, ASX: 23/05/18
D6 Peninsula Launches Testing for Value-Added Spherical Graphite Processing in Korea, ASX: 24/04/18
D7 Very High-Grade Graphite Concentrate Grades for Eunha Graphite Project, ASX: 10/04/18
D8 New High-Grade Graphite Results Confirm Resource Drilling Target at Gapyeong, ASX: 19/03/18
D9 Exceptional EM Conductors Define Drilling Targets at Gapyeong Graphite Project, ASX: 14/03/18
D10 Outstanding EM Conductors Define Graphite Targets at Eunha, ASX: 28/02/18
D11 PSM signs MOU to supply Flake Graphite to Korean End-Users, ASX: 15/08/17
D12 Super Jumbo and High-Grade Flake Graphite at New Projects, ASX: 20/10/17
D13 Flake-Graphite Offtake & Development MOU signed with Korean End-User, ASX: 14/06/17
D14 South Korean Graphite Projects Update, ASX: 17/05/17
D15 Excellent Metallurgy and High-Grade Trenching Results, Yongwon Graphite Project ASX: 12/01/17
D16 Benchmark Mineral Intelligence Graphite Pricing Assessment, June 2018

For full versions of the Company’s releases see Peninsula’s website www.peninsulamines.com.au

Forward Looking Statements

This report contains certain forward-looking statements. These forward-looking statements are not historical facts but rather are based on Peninsula Mines Ltd’s current expectations, estimates and projections about the industry in which Peninsula Mines Ltd operates, and beliefs and assumptions regarding Peninsula Mines Ltd’s future performance. Words such as “anticipates”, “expects”, “intends”, “plans”, “believes”, “seeks”, “estimates” “potential” and similar expressions are intended to identify forward-looking statements. These statements are not guarantees of future performance and are subject to known and unknown risks, uncertainties and other factors, some of which are beyond the control of Peninsula Mines Ltd, are difficult to predict and could cause actual results to differ materially from those expressed or forecasted in the forward-looking statements. Peninsula Mines Ltd cautions shareholders and prospective shareholders not to place undue reliance on these forward-looking statements, which reflect the view of Peninsula Mines Ltd only as of the date of this report. The forward-looking statements made in this report relate only to events as of the date on which the statements are made. Peninsula Mines Ltd does not undertake any obligation to report publicly any revisions or updates to these forward-looking statements to reflect events, circumstances or unanticipated events occurring after the date of this report except as required by law or by any appropriate regulatory authority.

Competent Persons Statements

The information in this report that relates to Exploration Results and Exploration Targets is based on information compiled by Mr Daniel Noonan, a Member of the Australian Institute of Mining and Metallurgy. Mr Noonan is an Executive Director of the Company.
Mr Noonan 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 ‘Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves’. Mr Noonan consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

The information in this release that relates to metallurgical test work is based on information compiled and/or reviewed by Mr Peter Adamini who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Adamini is a full-time employee of Independent Metallurgical Operations Pty Ltd. Mr Adamini consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this release that relates to Geophysical Results and Interpretations is based on information compiled by Karen Gilgallon, Principal Geophysicist at Southern Geoscience Consultants. Karen Gilgallon is a Member of the Australasian Institute of Geoscientists (AIG) and 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 ‘Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves’. Karen Gilgallon consents to the inclusion in the release of the matters based on this information in the form and context in which it appears.