

21 August 2023

## **WGR to acquire Swedish High-Grade REE (>3.45% TREO) and Graphite (up to 20% TGC) Projects**

### **HIGHLIGHTS**

Western Gold Resources (ASX: WGR, Company) has entered into a conditional agreement to acquire Euro Future Metals Pty Ltd (EFM), which holds exploration permit applications over three high grade prospects in Sweden, the Holmtjarn REE, Loberget Graphite and Rullbo Graphite Projects (Acquisition).

#### **Holmtjarn nr 100 REE Project (24.43km<sup>2</sup>):**

- A rock chip sample of greater than 3.45% (34,448 ppm) Total Rare Earth Oxide (TREO) with a ratio of Magnetic Rare Earth Oxide (MREO) to TREO of 25% is recorded in historic sampling of pegmatites.
- The actual quantity of TREO is unknown because the upper detection limit was exceeded.
- Numerous mapped pegmatites have not been tested for REE-potential and will be the focus of an upcoming exploration program.
- The ground is highly prospective for NYF (Niobium, Yttrium and REE, Fluorine) pegmatites.

#### **Loberget nr 100 Graphite Project (15.57km<sup>2</sup>):**

- Lies adjacent to Leading Edge Materials' (TSXV: LEM) coarse flake Woxna graphite deposit (13.3Mt @ 7.83% TCG for 1040 Kt; 4% C cut-off)<sup>1</sup>.
- WGR has identified two favourable horizons of low resistivity that extend to the northwest over a strike length of 4km coincident with rock chip value of 9.3% TGC and are interpreted to be extensions of the Woxna graphite deposit.

#### **Rullbo nr 100 Graphite Project (35.16km<sup>2</sup>):**

- Trenching identified graphite bearing horizons with thicknesses of 5m to over 40m with visual estimate of graphite content of 5 to 20% TGC.
- Nine diamond cores from base metal exploration intersected up to 60m of graphitic schists.
- Diamond core is available and is to be re-assayed.

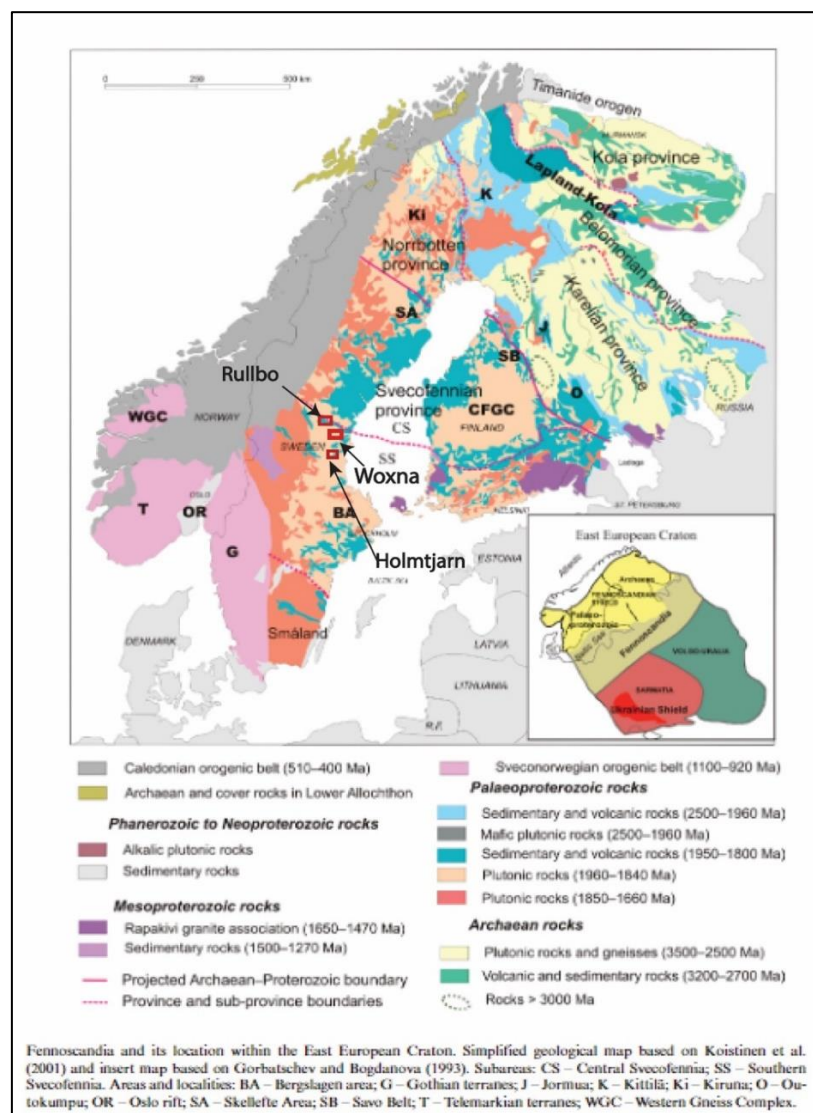
Following a review of projects globally, Western Gold Resources (**ASX: WGR**) (“**WGR**” or “**the Company**”) is pleased to announce it has entered into a conditional agreement to acquire the Holmtjärn REE, Loberget Graphite and Rullbo Graphite Projects (Figure 1), located in one of the world’s best mining jurisdictions, Sweden.

The Holmtjärn Project is hosted within syn- to late-orogenic intrusive rocks interpreted to host NYF pegmatites like the Stockholm granite and Ytterby pegmatite group, Sweden. The Loberget and Rullbo Graphite Projects are located in the northern Gävleborg County that hosts to the Woxna graphite deposit, the only graphite mine in the European Union (EU).

**WGR Managing Director Warren Thorne commented:**

*“We are excited to expand our exploration portfolio for highly sought-after critical minerals within one of the world’s best mining jurisdictions.*

*The Holmtjärn, Loberget and Rullbo Projects strongly complement our critical minerals portfolio, and we look forward to working with our in-country technical experts as well as new stakeholders. We believe Sweden’s REE and Graphite potential is still to be unlocked, and that these Projects can assist making Europe self-sufficient in battery minerals. We remain committed to creating shareholder value as a committed and effective explorer for critical minerals in Sweden. The Swedish autumn is an exciting time for the Company, with exploration programs to be conducted across the three Projects areas.”*



**Figure 1. Location of the Rullbo, Woxna and Holmtjärn projects within the Bergslagen area, central Sweden (modified after Lahtinen, R., 2012<sup>2</sup>)**

## **Holmtjarn REE Project**

The Holmtjarn REE Project application consists of 24.43km<sup>2</sup> of ground 12km WNW of the town of Borlange in the Dalarna County (Figure 1, 2).

In 1988 the Geological Survey of Sweden (SGU) undertook a rock chip sampling program for industrial minerals and rocks within the county. One sample was taken from the Holmtjärnsmine or Flint mine: a 70 × 10–15 m large, northeast-oriented quartz quarry. Quartz and a smaller amount of feldspar was mined from a 90 m long, lens-shaped, and maximum 22m wide, northeast-oriented quartz lens which dips 60–70° to the southeast.

At a deeper level, the quartz is surrounded by a 1–2 m wide border of coarse feldspar, mainly plagioclase and red potassium feldspar. The feldspar zone appears to be wider in the upper parts of the mine. Brotzen (1959)<sup>3</sup> has reported the occurrence of allanite, gadolinite and fergusonite in the Holmtjärnsmine, and in addition thortveitite (Sc,Y)<sub>2</sub>Si<sub>2</sub>O<sub>7</sub>, which occurs as long prismatic, up to 10 cm long, grey-green crystals together with feldspar and several unidentified REE minerals (Langhof 1996)<sup>4</sup>.

**Table 1 Holmtjarn REE sample geochemistry**

Sample	HOLM140001
CeO <sub>2</sub>	4,041
Dy <sub>2</sub> O <sub>3</sub>	1,477
Er <sub>2</sub> O <sub>3</sub>	1,144
Eu <sub>2</sub> O <sub>3</sub>	23
Gd <sub>2</sub> O <sub>3</sub>	1,153
Ho <sub>2</sub> O <sub>3</sub>	1,146
La <sub>2</sub> O <sub>3</sub>	1,114
Lu <sub>2</sub> O <sub>3</sub>	1,137
Nd <sub>2</sub> O <sub>3</sub>	5,004
Pr <sub>6</sub> O <sub>11</sub>	895
Sm <sub>2</sub> O <sub>3</sub>	1,160
Tb <sub>2</sub> O <sub>3</sub>	1,176
Tm <sub>2</sub> O <sub>3</sub>	1,142
Y <sub>2</sub> O <sub>3</sub>	12,699
Yb <sub>2</sub> O <sub>3</sub>	1,139
Total TREO	34,449

One sample of pegmatite from the Flint mine returned very high-grade results of greater than 3.45% TREO (Table 1) The actual quantity of TREO is unknown because the analytical method used (ALS Global method ME-MS81) has upper detection limits of 1000ppm for Sm, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu and Y, which were exceeded. Consequently, the actual results for these samples must be greater than the values analysed (Table 1). The pegmatites at Holmtjarn are interpreted to be niobium–yttrium–fluorine (NYF) pegmatites that are characterised by enrichment in Be, Sn, B, Nb > Ta, Ti, Y, rare earth elements (REE), Zr, Th, U, Sc and F, but are depleted in Li, Cs and Rb.

The Holmtjarn application area hosts numerous mineral occurrences including old quarries that previously mined pegmatites (Figure 2). In the north of the application area, magnetite-apatite mineralization also presents further exploration potential with the potential for REE-enrichment within the apatite associated with this style of mineralisation.



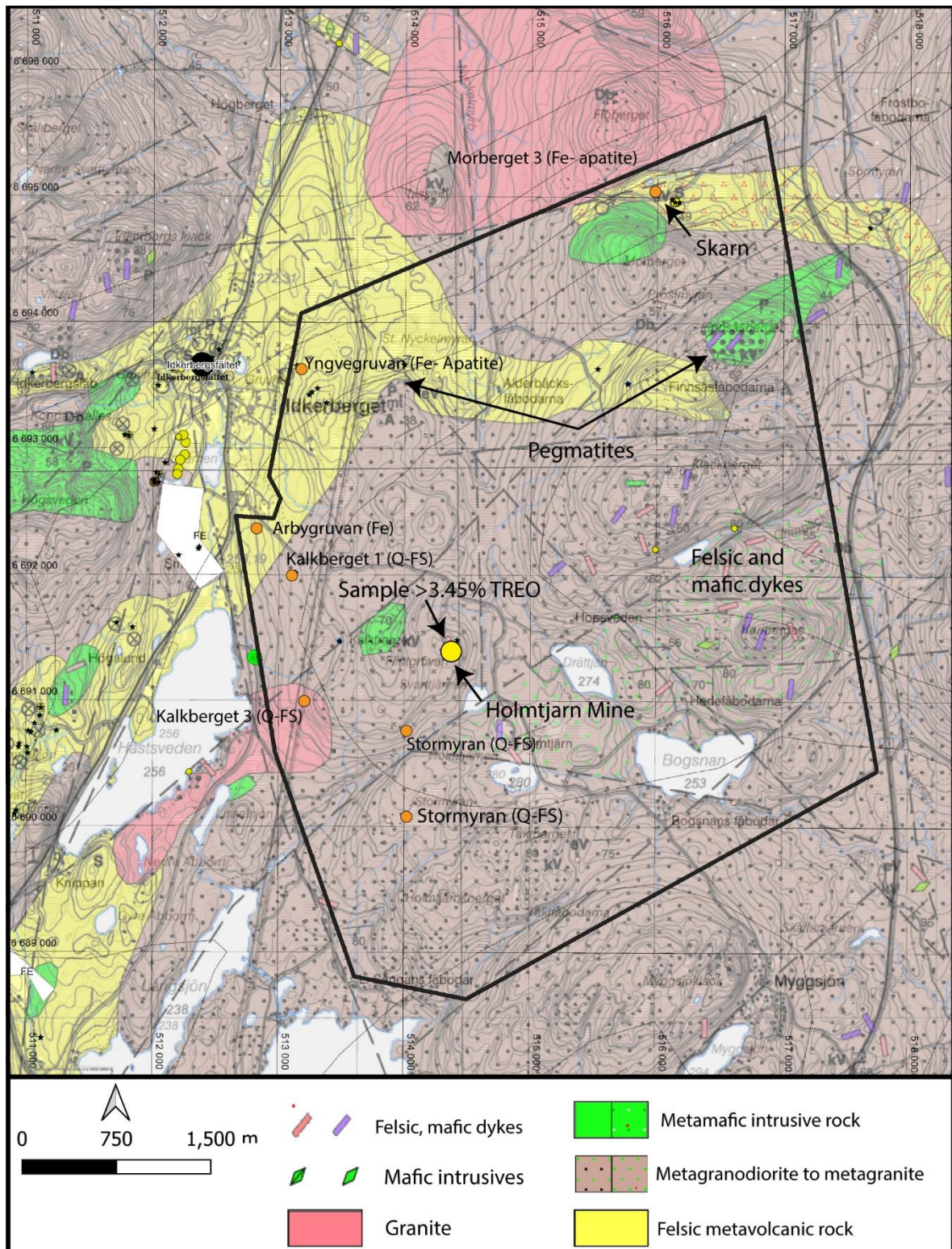


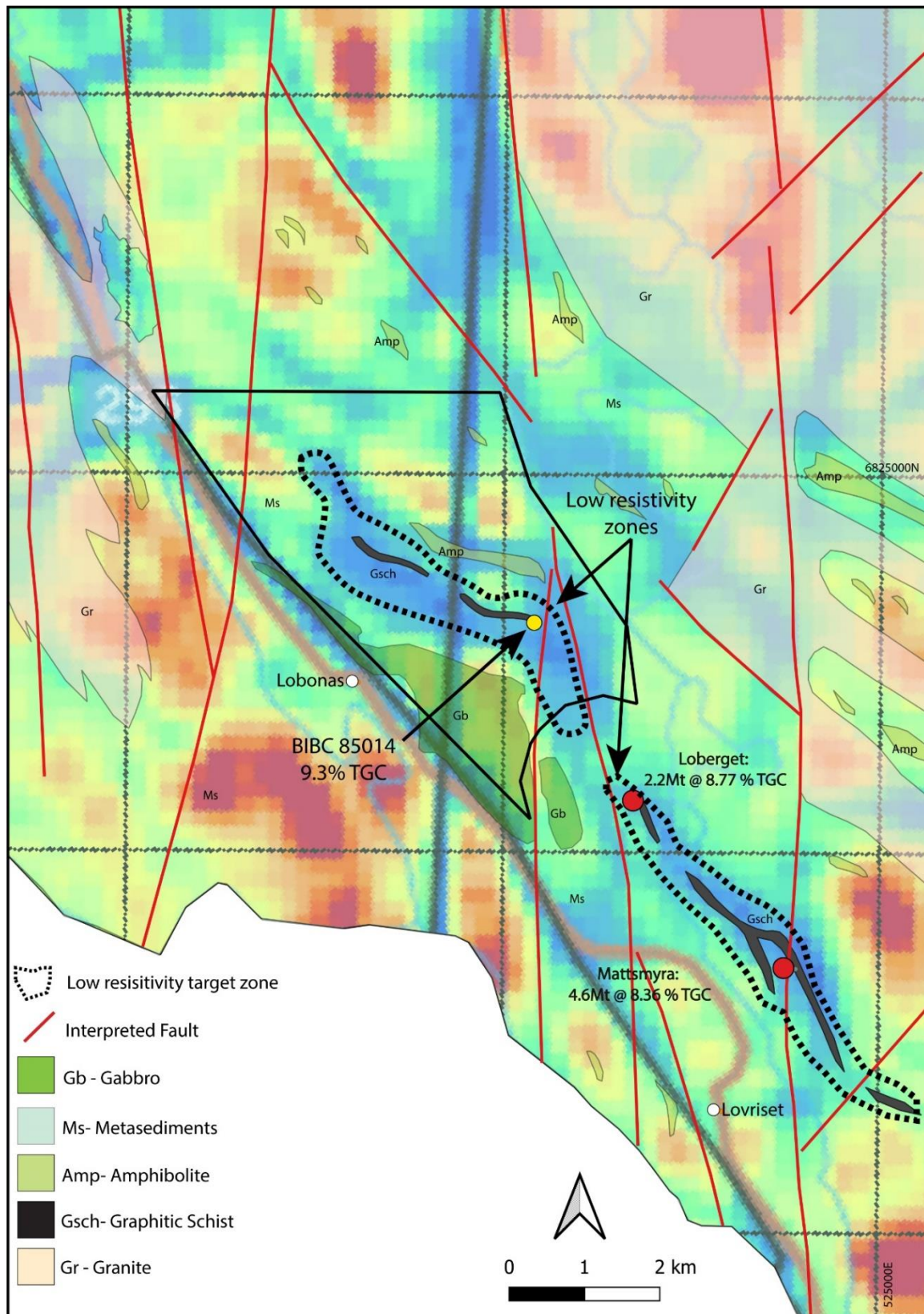
Figure 2. Holmtjärn exploration application displaying basement geology, rock chip sample locations and prospects.

### Loberget Graphite Project

Graphite mineralisation occurs in prehnite-bearing meta-tuffs, garnetiferous meta-argillites and pegmatitic gneiss in at least three discontinuous, stratiform graphite-pyrrhotite horizons. Based on unexplored geophysical targets of low resistivity, WGR has identified two favourable horizons that extend to the northwest of the Gropado resource (Figure 3). Structural interpretation supports previous field observations that north-trending dextral faults have cut the graphitic horizons into several bodies and folding attributing to the structural repetition of



the mineralised zones. Individual bodies of mineralization have a thickness of 3-30m, but, due to structural repetition, may attain true thicknesses of up to 55m.



**Figure 3. Loberget exploration application with exploration targets, rock chip sample locations, targets and geology shown on apparent resistivity.**

In 1985, the Sverigask Geolokista AB (SGAB)<sup>5</sup> complete undertook a rock chip sampling program over the Woxna project area. Six samples from graphitic boulders were taken as part of a regional exploration program and submitted to SGAB laboratory for C analysis. The high

C (9.3%) values taken from the one sample (BIBC 85014) with the Loberget application area is coincident with interpreted geology supporting a mineralised zone of up to 4km.

The Loberget application has had a lack of modern work in the area and WGR believes there is significant exploration potential given advances in modern geophysical techniques that are able to target below the glacial moraine that covers much of the Project area.

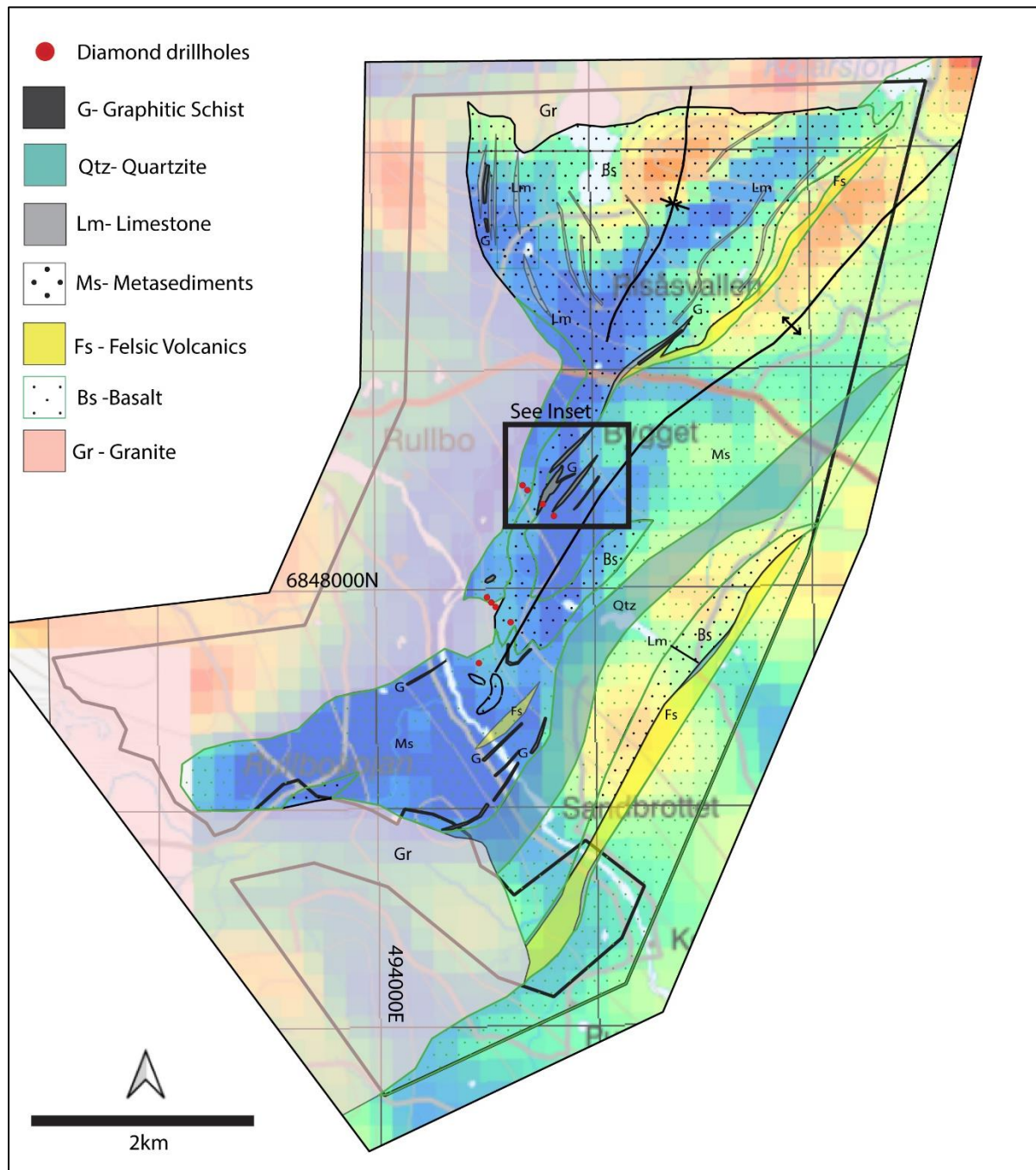
### **Rullbo Graphite Project**

The Rullbo nr 100 application consists of 35.16km<sup>2</sup> of highly prospective ground located some 40km SW of the town of Sveg in the Gävleborg County (Figures 1,4). Historically, the exploration tenure has largely been explored for base metals, gold, and tungsten.

Previous explorers mapped graphitic schists during field mapping programs (Figure 4), as well as logging graphitic shales in trenches<sup>6</sup> and diamond drill holes<sup>7</sup>. Numerous graphitic shale horizons have been mapped on the Rullbo application area, with most of the work completed from trenching during the excavation of a forest road. Trenching<sup>4</sup> (Figure 5) identified graphite bearing horizons with thicknesses of 5m to over 80m with visual estimate of graphite content of 5 to 20%. In some cases, the rock appears to consist solely of graphite and chlorite.

**Table 2 Rullbo Diamond drillholes**

DRILLHOLE	NAME	YEAR	DEPTH FROM	DEPTH TO	TOT_DEPTH	N SWEREF	E SWEREF	LOCAL N	LOCAL E	AZI	DIP
84001	Rullbo	1984	3.65	106.7	103.05	6848672	495646	-770	-640	388	55
84002	Rullbo	1984	4.7	101.55	96.85	6848786	495546	-619	-631	386	55
84003	Rullbo	1984	6.35	101.3	94.95	6848914	495407	-430	-640	383	55
84004	Rullbo	1984	6	101.3	95.3	6848956	495365	-370	-640	384	50
84005	Rullbo	1984	3.7	105.5	101.8	6847841	495119	-990	-1600	374	50
84006	Rullbo	1984	8.6	100.05	91.45	6847706	495252	-1180	-1600	380	50
84007	Rullbo	1984	3.7	81.8	78.1	6847926	495034	-870	-1600	356	50
84008	Rullbo	1984	4.3	74.5	70.2	6847884	495076	-930	-1600	364	55
84009	Rullbo	1984	4.6	100.8	96.2	6847326	494953	-1240	-2080	343	55

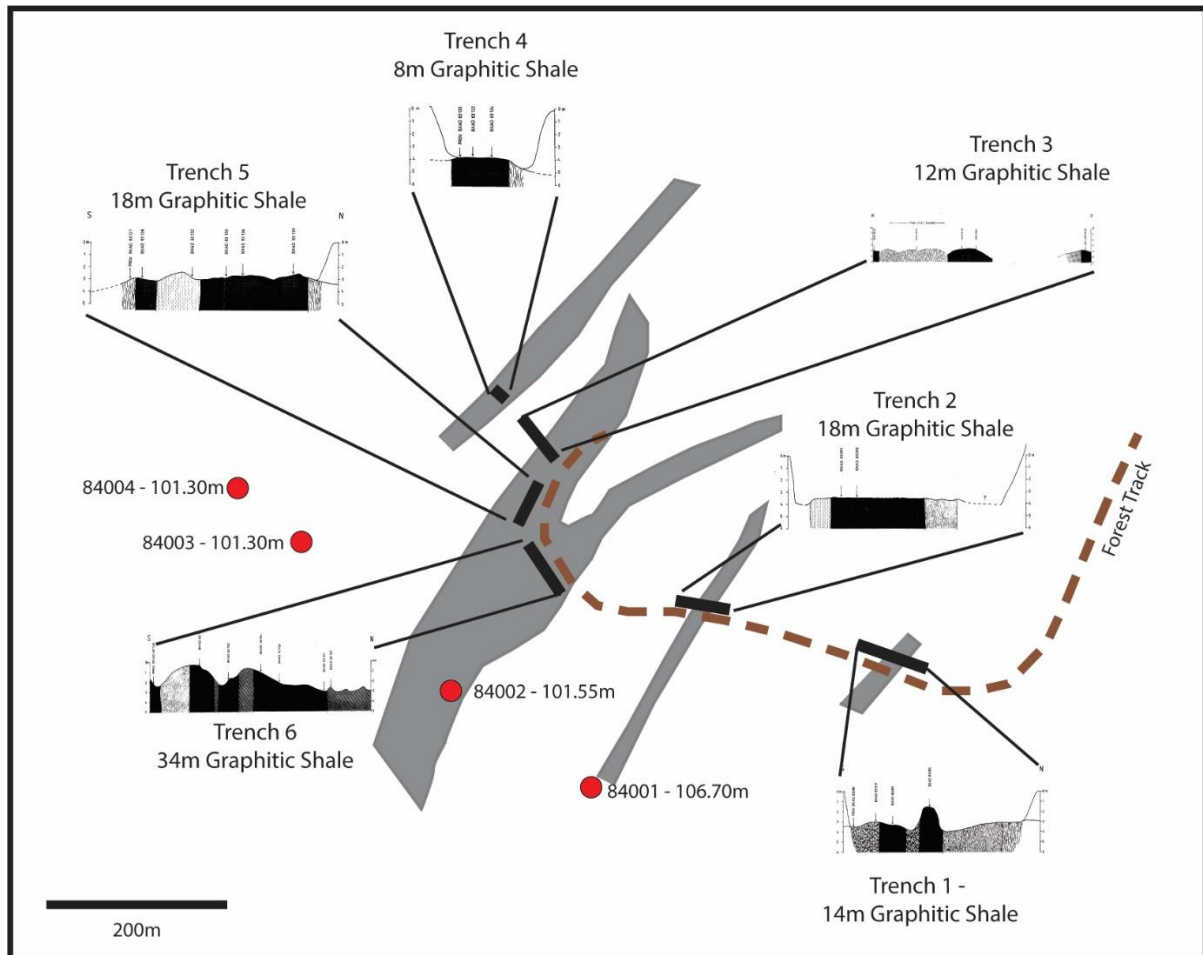


**Figure 4. Rullbo exploration application with mapped geology, drillhole locations and structure shown on apparent resistivity. Inset shown displayed in Figure 5.**

Nine diamond drillholes (84001-84009; Table 2) for 827.40m were drilled on the project (Figures. 4, 5) area focusing on base-metal mineralisation and associated magnetic anomalies. Multi-element assay results from the diamond core showed no anomalous values. Descriptive logs of the drillholes did describe intersections of graphitic schist, graphitic phyllite with quartz-feldspar gangue, tremolite-actinolite skarn and phyllite. All drillholes are currently stored at the Mala core library and are available for logging and re-assay. Numerous other graphitic shale occurrences have been mapped and require follow-up mapping and geochemical sampling.

The graphitic shale occurrences are coincident with low/resistivity and high conductivity identified by the Swedish Geological Survey's (SGU) VLF survey. The survey demonstrates the additional potential for graphite mineralisation (Figure 4; blue areas) within the application area.





**Figure 5. Rullbo mapped trenches and location of drill holes 84001-84004. Basement rocks located approximately 3m below moraine.**

### **Historical Exploration Results not in accordance with JORC Code 2012**

Exploration results included in this announcement include historical rock chip samples and drill logs taken from reports compiled by previous explorers and which were not reported in accordance with the JORC Code 2012. The Company has not yet undertaken sufficient evaluation or exploration that would enable a Competent Person to confirm and report these exploration results in accordance with the JORC Code 2012. It is possible that following further evaluation and exploration work that the confidence in these results may be reduced. Nothing has come to the attention of the Company that causes it to question the accuracy or reliability of the historical exploration results. The Company has not independently validated the exploration results and is not to be regarded as adopting or endorsing them. There are no more recent available relevant exploration data.

### **Next Steps**

The Company plans to undertake:

- Systematic geochemical sampling of known mineral occurrences within the tenement in conjunction with reconnaissance geological mapping.
- Existing geophysical surveys will be purchased and reprocessed to help define prospective regions.
- Relogging and assaying of historical core from Rullbo to determine graphite content.



## Acquisition Terms

The material terms of the Acquisition are as follows:

- Conditional upon:
  - Legal, financial and technical due diligence by WGR on EFM and the Projects;
  - WGR obtaining all requisite shareholder and regulatory approvals for the Acquisition;
  - Grant of the three permit applications; and
  - Completion of the Capital Raising,

WGR shall acquire EFM in consideration for:

- a cash payment of \$75,000;
- the issue of 17,250,000 shares;
- the issue of 8,500,000 performance rights each convertible into 1 share on the achievement, within 2 years of grant, of an Exploration Target (as defined in JORC 2012) of, or greater than:
  - 30-60Mt at 0.8-1.2% total rare earths oxides in relation to the area the subject of the permits; or
  - 30-60Mt at 5-10% total graphite content in relation to the area the subject of the permits; and
- the issue of 8,500,000 performance rights each convertible into 1 share on the achievement, within 2 years of grant, of a drill intersection on one of the permits of at least 15 meters @ 10% total graphite content or 15 meters @ 0.5% total rare earth oxides.
- And otherwise on standard terms found in agreements of this nature including as to warranties and termination.
- EFM are affiliates of the Lead Manager to the Placement, GTT Ventures Pty Ltd (**GTT**).

## Capital Raising

WGR has received firm commitments for a raising of \$1.5m @ \$0.035 per share. The raising shall be conducted in two tranches.

Under Tranche 1, WGR shall issue 8,971,839 shares pursuant to LR 7.1 and 7.1A to raise \$314,014 and shall be settled on 29 August 2023. The Tranche 1 raising issue price of \$0.035 per share represents a discount of 18% to the 15-day VWAP of \$0.0413 per share and a 14% discount to WGR's last close price of \$0.04 per share on 16 August 2023.

Under Tranche 2, WGR shall issue 33,885,304 shares to raise \$1,185,986. Tranche 2 is subject to shareholder approval. The Company shall shortly be issuing a Notice of Meeting seeking shareholder approval for Tranche 2 along with all other aspects of the Acquisition requiring shareholder approval.

GTT are the Lead Manager to the capital raising. WGR shall pay GTT a capital raising fee of 6% (+ GST) on all funds raised.

## References

- <sup>1</sup>Flinders Resources Limited, Technical Report for the Woxna Graphite Project, Central Sweden. Reed Leyton Consulting, Australia, 2015
- <sup>2</sup>Lahtinen, r. 2012. Main geological features of Fennoscandia. Geological Survey of Finland, Special Paper 53, 13–18
- <sup>3</sup>Brotzen, O., 1959: Mineral-association in granitic pegmatites. A statistical study. *Geologiska Föreningens Stockholm Förhandlingar* 81, 231-296
- <sup>4</sup>Langhof, J. (1996): Thortveitite from granitic NYF pegmatites in Sweden. *Geologiska Föreningens I Stockholm Förhandlingar* 118, A54
- <sup>5</sup>PRAP 85539 Mattsmyra, Grattitprosektning 1985, Plats 15F Mattsmyra, 1985
- <sup>6</sup>PRAP 83550 Rullbo Geologi, Plats 16F Karbole S, Sveriges Geologiska AB, 1983
- <sup>7</sup>PRAP 84543 Borning Rullbo, Plats 16F Karbole SV, Sveriges Geologiska AB, 1984

## ENDS

### For further information please contact:

Gary Lyons  
Chairman  
E: [garylions@heiniger.com.au](mailto:garylions@heiniger.com.au)

Warren Thorne  
Managing Director  
E: [warrent@westerngoldresources.com.au](mailto:warrent@westerngoldresources.com.au)

## Competent Person's Statement

*The information in this report which relates to Exploration Results is based on information compiled by Dr Warren Thorne, he is a member of the Australasian Institute of Mining and Metallurgy (AusIMM) and a full-time employee of the company. Dr Thorne who is an option-holder, 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, Exploration Targets, Mineral Resources and Ore Reserves" (JORC Code). Dr Thorne consents to inclusion in the report of the matters based on this information in the form and context in which it appears.*

## Forward looking statements

*This announcement contains forward-looking statements which are identified by words such as 'may', 'could', 'believes', 'estimates', 'targets', 'expects', or 'intends' and other similar words that involve risks and uncertainties. These statements are based on an assessment of present economic and operating conditions, and on a number of assumptions regarding future events and actions that, as at the date of this announcement, are expected to take place. Such forward-looking statements does not guarantee future performance and involve known and unknown risks, uncertainties, assumptions and other important factors, many of which are beyond the control of the Company, the directors and our management. We cannot and do not give any assurance that the results, performance or achievements expressed or implied by the forward-looking statements contained in this prospectus will actually occur and investors are cautioned not to place undue reliance on these forward-looking statements. We have no intention to update or revise forward-looking statements, or to publish prospective financial information in the future, regardless of whether new information, future events or any other factors affect the information contained in this announcement, except where required by law. These forward-looking statements are subject to various risk factors that could cause our actual results to differ materially from the results expressed or anticipated in these statements.*

# JORC 2012 Table 1

## Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<p>Drill hole sampling</p> <ul style="list-style-type: none"> <li>Historical diamond drill holes have been sampled as half core samples taken over two metre length intervals.</li> </ul> <p>Rock Chip Sampling</p> <ul style="list-style-type: none"> <li>The public reports, refers to rock chip samples collected by the Geological Survey of Sweden (SGU) as part of a program to investigate rare earth elements and graphite in the Gävleborg District of southern Sweden.</li> <li>Grab samples were subject to high quality and comprehensive laboratory geochemical analyses.</li> <li>Samples were collected to characterize specific rock types and alteration.</li> <li>Analytical results from rocks are Material to this Public Report with respect to the target elements (rare earth elements-REE and graphite) which had not been assessed before using modern techniques.</li> <li>The work and analyses have been completed to a high standard require in government surveys</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul style="list-style-type: none"> <li>Drilling has been undertaken using diamond coring methods. No reverse circulation, auger, or other drilling methods have been used.</li> <li>Reported historical drilling are WL56 diamond drillholes (39mm core diameter)</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul style="list-style-type: none"> <li>Core recovery was not recorded in historical holes at the time</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>Historical drill holes and trenches were logged by LKAB at the time. Records available from the time are limited, although historical reports were provided as scanned documents. Simple geological/graphic logs recording lithology/rock type for each interval in drill holes and costeans are available. The reports also include cross sections of drill holes and costeans showing graphite intersections and laboratory analytical results</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>Samples were taken over regular two metre intervals and analysed as half-core samples. Sampling information for costeans is limited although from historical reports it is understood samples were taken as rock chips. Sample preparation procedures used historically are unknown. No QA/QC sampling exists for historical drill holes or costeans</li> </ul>



Criteria	JORC Code explanation	Commentary																																																																								
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"><li><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li><li><i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i></li><li><i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i></li></ul>	<p>Drilling:</p> <ul style="list-style-type: none"><li>Historical drillhole samples were analysed for sulphur and trace elements at LKAB's laboratory in Malmberget. The exact analytical method (whether partial or total) is not known.</li><li>No opinion can be provided regarding sulphur or trace element analytical methods</li><li>The accreditation status of the LKAB laboratories at the time of analysis is not known although it is expected that standard practices for the time would have been adopted</li></ul> <p>Rockchips</p> <p>REE:</p> <ul style="list-style-type: none"><li>The nature of the analyses is appropriate to the nature of mineralization. Analyses were complete by ALS Global Sweden. Samples were crushed and pulverized to industry standard and analysed using ALS Code ME-MS81. This uses a lithium borate fusion prior to acid digest with an ICP-MS analysis. SGU report using standards. No analytical issues are reported. The table below shows the analytes and their lower and upper range of detection using this technique.</li></ul> <table><tr><th>CODE</th><th colspan="6">ANALYTES AND RANGES (ppm)</th></tr><tr><td rowspan="8">ME-MS81™ 0.1g sample</td><td>Be</td><td>0.5-10000</td><td>Gd</td><td>0.05-1000</td><td>Rb</td><td>0.2-10000</td><td>Ti</td><td>0.01-10%</td></tr><tr><td>Ce</td><td>0.1-10000</td><td>Hf</td><td>0.05-10000</td><td>Sc</td><td>0.5-500</td><td>Tm</td><td>0.01-1000</td></tr><tr><td>Cr</td><td>5-10000</td><td>Ho</td><td>0.01-1000</td><td>Sm</td><td>0.03-1000</td><td>U</td><td>0.05-1000</td></tr><tr><td>Cs</td><td>0.01-10000</td><td>La</td><td>0.1-10000</td><td>Sn</td><td>0.5-10000</td><td>V</td><td>5-10000</td></tr><tr><td>Dy</td><td>0.05-1000</td><td>Lu</td><td>0.01-1000</td><td>Sr</td><td>0.1-10000</td><td>W</td><td>0.5-10000</td></tr><tr><td>Er</td><td>0.03-1000</td><td>Nb</td><td>0.05-2500</td><td>Ta</td><td>0.1-2500</td><td>Y</td><td>0.1-10000</td></tr><tr><td>Eu</td><td>0.02-1000</td><td>Nd</td><td>0.1-10000</td><td>Tb</td><td>0.01-1000</td><td>Yb</td><td>0.03-1000</td></tr><tr><td>Ga</td><td>0.1-1000</td><td>Pr</td><td>0.02-1000</td><td>Th</td><td>0.05-1000</td><td>Zr</td><td>1-10000</td></tr></table> <p>Carbon</p> <p>Analyses were complete by ALS Global Sweden. Information on the analysis for C is unknown.</p>	CODE	ANALYTES AND RANGES (ppm)						ME-MS81™ 0.1g sample	Be	0.5-10000	Gd	0.05-1000	Rb	0.2-10000	Ti	0.01-10%	Ce	0.1-10000	Hf	0.05-10000	Sc	0.5-500	Tm	0.01-1000	Cr	5-10000	Ho	0.01-1000	Sm	0.03-1000	U	0.05-1000	Cs	0.01-10000	La	0.1-10000	Sn	0.5-10000	V	5-10000	Dy	0.05-1000	Lu	0.01-1000	Sr	0.1-10000	W	0.5-10000	Er	0.03-1000	Nb	0.05-2500	Ta	0.1-2500	Y	0.1-10000	Eu	0.02-1000	Nd	0.1-10000	Tb	0.01-1000	Yb	0.03-1000	Ga	0.1-1000	Pr	0.02-1000	Th	0.05-1000	Zr	1-10000
CODE	ANALYTES AND RANGES (ppm)																																																																									
ME-MS81™ 0.1g sample	Be	0.5-10000	Gd	0.05-1000	Rb	0.2-10000	Ti	0.01-10%																																																																		
	Ce	0.1-10000	Hf	0.05-10000	Sc	0.5-500	Tm	0.01-1000																																																																		
	Cr	5-10000	Ho	0.01-1000	Sm	0.03-1000	U	0.05-1000																																																																		
	Cs	0.01-10000	La	0.1-10000	Sn	0.5-10000	V	5-10000																																																																		
	Dy	0.05-1000	Lu	0.01-1000	Sr	0.1-10000	W	0.5-10000																																																																		
	Er	0.03-1000	Nb	0.05-2500	Ta	0.1-2500	Y	0.1-10000																																																																		
	Eu	0.02-1000	Nd	0.1-10000	Tb	0.01-1000	Yb	0.03-1000																																																																		
	Ga	0.1-1000	Pr	0.02-1000	Th	0.05-1000	Zr	1-10000																																																																		
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"><li><i>The verification of significant intersections by either independent or alternative company personnel.</i></li><li><i>The use of twinned holes.</i></li><li><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li><li><i>Discuss any adjustment to assay data.</i></li></ul>	<ul style="list-style-type: none"><li>No verification undertaken for historical rock chips.</li><li>No verification undertaken for historical drill cores</li><li>Data was extracted from the SGU website <a href="http://www.sgu.se/en">www.sgu.se/en</a></li><li>Element Conversion Factor-Oxide Form Ce 1.2284 CeO2 Dy 1.477 Dy2O3 Er 1.1435 Er2O3 Eu 1.1579 Eu2O3 Gd 1.1526 Gd2O3</li></ul>																																																																								

Criteria	JORC Code explanation	Commentary
		<p>Ho 1.1455 Ho2O3  La 1.1728 La2O3  Lu 1.1371 Lu2O3  Nd 1.1664 Nd2O3  Pr 1.2083 Pr6O11  Sm 1.1596 Sm2O3  Tb 1.1762 Tb2O3  Tm 1.1421 Tm2O3  Y 1.2699 Y2O3  Yb 1.1387 Yb2O3</p> <p>Analytical results are reported by the laboratory on ppm. Rare earth oxide is the industry accepted form for reporting rare earth elements. The following calculations are commonly used for compiling REO into their reporting and evaluation groups.  TREO (Total Rare Earth Oxide) =  La2O3+CeO2+Pr6O11+Nd2O3+Sm2O3+Eu2O3+Gd2O3+Tb4O7+Dy2O3+Ho3O3+Er2O3+Tm2O3+Yb2O3+Y2O3+Lu2O3</p> <p>MREO (Magnet Rare Earth Oxides) = Pr6O11+Nd2O3+Tb4O7+Dy2O3</p>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>Historical drillhole collars were initially surveyed in an unknown local coordinate system</li> <li>SGU data indicates rock samples were located using handheld GPS</li> <li>Grid system is SWEREF 99 TM [EPSG: 3006]</li> <li>Topographic control is not reported but GPS elevation data is sufficient for the reconnaissance nature of the sampling.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>Drillhole spacings vary but are typically between 500m and 1000m along strike and 50m to 100m down dip</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul style="list-style-type: none"> <li>All drill holes have been drilled along fences/sections orientated approximately perpendicular to the strike of the graphite mineralised unit. This is deemed appropriate to avoid sampling bias considering the geometry of the deposit.</li> <li>Drill holes have been completed at inclinations of between 50° and 60° from horizontal to intersect the near vertical or sub-horizontal graphite mineralisation. As such, drill hole intersections are oblique to the mineralisation</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>Sample security and transport methodology unknown.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>None undertaken at this stage.</li> </ul>

## Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <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 license to operate in the area.</li> </ul>	<ul style="list-style-type: none"> <li>The Loberget nr 100, Rullbo nr 100 and Holmtjärn permits are under application and are not yet granted</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Exploration was initially undertaken during the early 1900's by a number of private entities and the Swedish Geological Survey (SGU). In the 1980s, LKAB conducted diamond drilling at Rullbo and rock chip sampling at the Holmtjärn and Loberget projects</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li> <p>Loberget</p> <p>Graphite is associated with prominent pegmatite intrusions that are interpreted to be the heat source during contact metamorphism. The pegmatite intrusions comprise quartz, orthoclase and phlogopite and intrude a metamorphosed, highly strained stratigraphic succession dominated by sedimentary and volcanoclastic protolithologies, which have undergone later brittle fracturing. The graphite deposits occur beneath a thin blanket of Quaternary age moraine deposits.</p> </li> <li> <p>Rullbo</p> <p>The Rullbo area is divided into two main tectonic and petrographic areas; a mudstone area with subordinate sediments in the northwest and a metasediment area with subordinate acidic, intermediate and basic volcanics in the southeast. The gresstone area forms a rather steeply dipping profile towards the northeast, and in the central and southeastern part of the Rullbo area, the metasediments form a steep anticlinal structure.</p> <p>Graphitic schist, with a locally significant sulfide content of mainly magnetite and pyrite occurs in a line between the quartzite in the south and the greenstones in north. One or more graphite-bearing horizons probably also occur in the area north of Gruvbackarna, i.e. in the western branch of the greenstone formation. The graphite content in the shales varies greatly, and in some cases the rock appears to consist solely of graphite and chlorite. The graphite shale transforms into a gravelly shale with increased admixture of terrigenous material and reduced graphite and sulphide content.</p> <p>The thickness seems to vary from a few meters to more than 40 m. Whether the observed large thicknesses are primary or caused by a folding of one or more layers is not clear. Graphite mineralisation is interpreted to be the result of local metasomatic reactions related to granitic intrusions.</p> </li> <li> <p>Holmtjärn</p> </li> </ul>



Criteria	JORC Code explanation	Commentary
		<p>The local rocks are dominated by older metavolcanites interspersed with early - Senorogenic granites and early orogenic gabbro. Just as in the other Bergslagen, the Kopslahyttan area has been affected by the Svekokarelian regional metamorphism. Recent studies of mineralization in the area have shown a number of different types of iron oxide mineralizations. In Kopslahyttan, apatite- and silicate-banded magnetite in the form of apatite iron ore and fracture-bound magnetite mineralizations of probable hydrothermal origin, as well as partially skarn-banded magnetite ore, have been identified. The mineralizations are found in older metavolcanites with E-W strikes and southern dip. The older metavolcanites are surrounded early orogenic granites and associated gabbro. Several types of iron oxide mineralization in the Kopslahyttan showed elevations in REE, some very much more than others. In a sample from Haggruvan, the highest concentrations were measured. Common to all iron oxide mineralizations examined was a distinct negative europium-(Eu) anomaly. The area exhibits several pegmatites and aplite. The pegmatites at Holmtjärn are interpreted to be niobium-yttrium-fluorine (NYF) pegmatites that are characterised by enrichment in Be, Sn, B, Nb &gt; Ta, Ti, Y, rare earth elements (REE), Zr, Th, U, Sc and F, but are depleted in Li, Cs and Rb.</p>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>Drilling information shown in Table 2</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <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 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> </ul>	<ul style="list-style-type: none"> <li>No weighting or averaging techniques have been applied to the sample assay results.</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>All drill holes have been drilled along fences/sections orientated approximately perpendicular to the strike of the graphite mineralised unit. This is deemed appropriate to avoid sampling bias considering the geometry of the deposit.</li> <li>Drill holes have been drilled at 50°-55° inclination, with the graphite mineralisation being approximately sub-vertical or near vertical (65°-85°).</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Appropriate maps, have been included within this report</li> </ul>

<i>Criteria</i>	<i>JORC Code explanation</i>	<i>Commentary</i>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>Historic results have been reported as reported by SGU</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The Company is not in possession of other relevant exploration results</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>Systematic geochemical sampling of known mineral occurrences within the tenement in conjunction with reconnaissance geological mapping.</li> <li>Existing geophysical surveys will be purchased and reprocessed to help define prospective regions.</li> <li>Relogging and assaying of historical core from Rullbo to determine graphite content.</li> </ul>