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ASX ANNOUNCEMENT
By e-lodgement
18 October 2021

EXPANSION POTENTIAL FOR ZAVALIEVSKY GRAPHITE SUPPORTED BY GRAPHITE MINERALISATION ESTIMATE

Highlights

- **Zavalievsky Graphite ("ZG") foreign and historical graphite mineralisation estimate of 22.913Mt at a grade of 6.8% carbon[1].**
- **Multi decade mine life based on current production capacity of graphite mine and processing plant.**
- **The foreign and historical estimate is a subset of the overall ZG graphite deposit.**
- **Production improvements and expansion will position ZG to be a significant supplier of graphite for battery anode material ("BAM").**
- **Supports Volt's plans to create a European based supply chain for BAM and other high value graphite products.**

Graphite producer and battery anode material developer **Volt Resources Limited** (**ASX: VRC**) ("**Volt"** or "**the Company"**) is pleased to provide the foreign and historical graphite mineralisation estimate for part of the Zavalievsky Graphite deposit. The foreign and historical estimate of tonnage of graphite mineralisation (above 2% carbon) at the Zavalievsky Graphite Project for the south-eastern area of the Zavalievsky site totals 22.913M tonnes at a grade of 6.8% carbon. The information has been compiled, reviewed and reported by Wardell Armstrong International. The graphite mineralisation estimate supports Volt's plans to expand graphite production in Europe and develop downstream processing facilities for battery anode material (**"BAM"**) and other high value graphite products.

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[1] Cautionary Statement: the estimates of mineralisation in respect to the Zavalievsky Graphite Project reported in this announcement are "foreign and historical estimates" for the purposes of the ASX Listing Rules, and accordingly:
• The estimates are not reported in accordance with the JORC Code (2012).
• A Competent Person has not done sufficient work to classify the foreign and historical estimates as current Mineral Resources or Ore Reserves in accordance with the JORC Code.
• It is uncertain that, following evaluation and/or further exploration work, that the above foreign and historical estimates will be able to be reported as Mineral Resources or Ore Reserves in accordance with the JORC Code.

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Volt's Managing Director, Trevor Matthews, commented "The ZG business has significant graphite mineralisation estimates at good grades. With further resource definition and metallurgical work, based on the deposit size Volt believes the mineralised estimate can be significantly increased and will be reported in accordance with the JORC code.
Combined with its superior geographical location in Eastern Europe and long operating history, ZG places Volt years ahead of its peer graphite companies without the usual development risks associated with a greenfield project.
Volt has the clear opportunity to become a key market participant in Europe through increasing graphite supply and developing battery anode material production to supply the growing European market and with excellent access to other markets in the USA and the Middle East."

The Zavalievsky Graphite business has the following significant advantages for Volt:

- Located in Eastern Europe, the Zavalievsky Graphite business is in close proximity to key markets with significant developments in Lithium-ion Battery ("LIB") facilities planned to service the European based car makers and renewable energy sector.
- Plans to produce BAM using existing graphite production to become a fully integrated supplier to LIB cell makers based in Europe.
- Makes graphite products across the range and has the potential to significantly increase its high value large flake production.
- Produces a high value purified 99.5% TGC product.
- Long life multi-decade producing mine that has further exploration upside.
- Existing customer base and graphite product supply chains.
- Excellent transport infrastructure covering road, rail, river and sea freight combined with reliable grid power, ample potable ground water supply and good communications.
- An experienced workforce which can assist with training, commissioning and ramp-up for the Bunyu development.
- Potential to generate material cashflow which could make Volt internally funded for corporate costs and working capital into the future.
- A 79% interest in 636 hectares of freehold land, with the mine, processing plant and other buildings and facilities located on that land.

Foreign and Historical Mineralisation Estimate

Table 1 Foreign and historical estimate of tonnage of graphite mineralisation (above 2% carbon) at the Zavalievsky Graphite Project reported in accordance with Russian GKZ standard as of 2020 (dated 01.01.2021)

Graphite mineralisation (balance only*) – south-eastern area of the Zavalievsky site within open pit design				
Type	**Grade (C %)**	**Tonnage B**	**Tonnage C1**	**Tonnage total**
Weathered ("loose'')	6.9	2 kt	385.3 kt	387 kt
Partially weathered ("semi-friable")	7.1	747 kt	1,691 kt	2,438kt
Fresh ("dense")	6.6	2,900 kt	1,627 kt	4,527 kt
Total	6.8	3,649 kt	3,703 kt	7,352 kt
Graphite mineralisation (out of balance only*) – south-eastern area of the Zavalievsky site outside of open pit design				
Weathered ("loose'')	6.9	-	1,490 kt	1,490 kt
Partially weathered ("semi-friable")	7.1	118 kt	3,925 kt	4,043 kt
Fresh ("dense")	6.6	220 kt	9,808 kt	10,028 kt
Total	6.8	338 kt	15,223 kt	15,561 kt
Total	**6.8**	**3,987 kt**	**18,926 kt**	**22,913 kt**

Note: * In accordance with the Ukrainian (Russian) classification, the "ores" are divided into on-balance (economic) and off-balance (potentially economic but are currently unprofitable to extract).

Cautionary Statement: the estimates of mineralisation in respect to the Zavalievsky Graphite Project reported in this announcement are "foreign and historical estimates" for the purposes of the ASX Listing Rules, and accordingly:

- The estimates are not reported in accordance with the JORC Code (2012).
- A Competent Person has not done sufficient work to classify the foreign and historical estimates as current Mineral Resources or Ore Reserves in accordance with the JORC Code.

- It is uncertain that, following evaluation and/or further exploration work, that the above foreign and historical estimates will be able to be reported as Mineral Resources or Ore Reserves in accordance with the JORC Code.

Full disclosures required by ASX Listing Rule 5.12 are contained in Appendix 1 to this announcement.

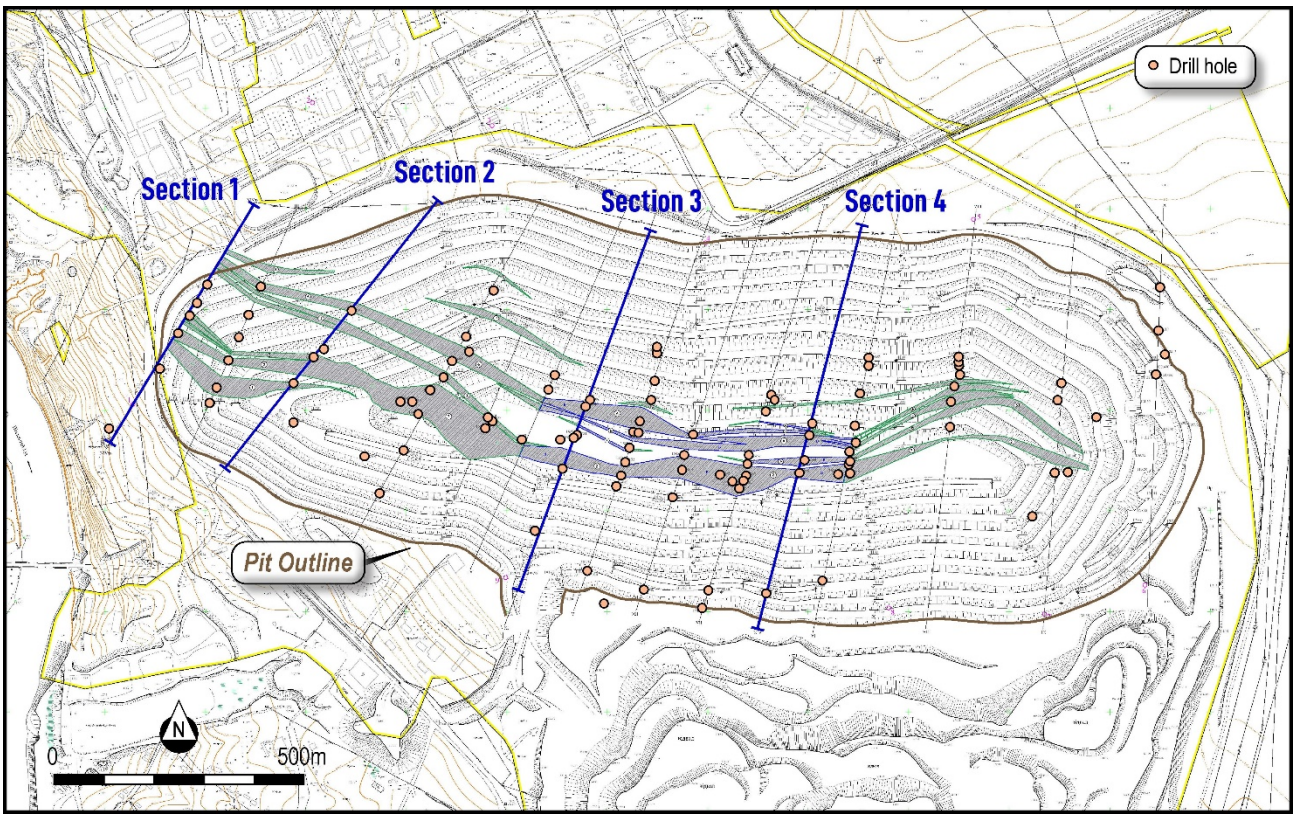

Figure 1 Plan of drillholes, drillhole sections, interpreted graphitic mineralisation and existing open pit in the south-eastern section of the Zavalievsky deposit

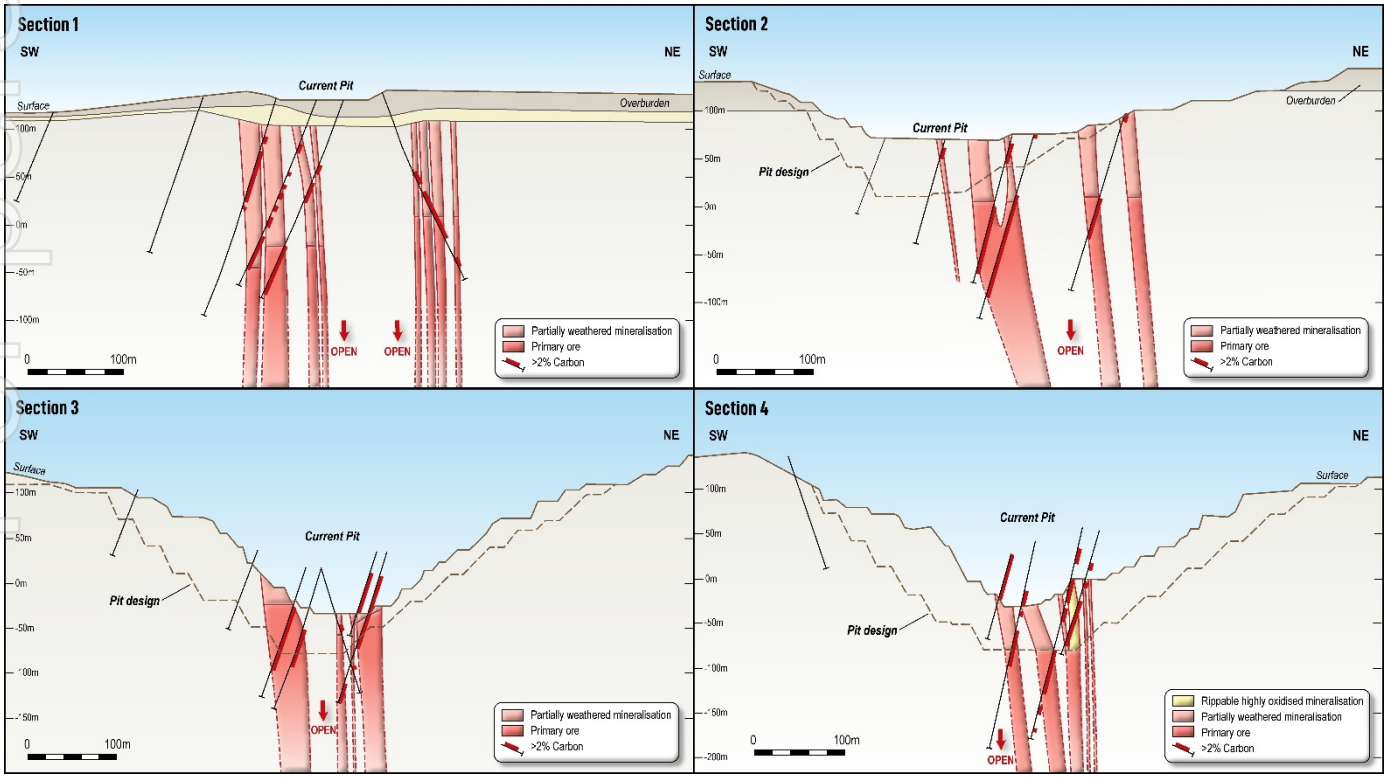

Figure 2 Cross-sections of interpreted graphite mineralisation (see Figure 1 for section locations)

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Summary of JORC 2012 Table 1 (Section 5.8.1 compliance)

Foreign and historical estimates – clarifying statements as required by ASX listing rule 5.12

Volt Resources confirms the first-time reporting of the mineralisation estimate for the Zavalievsky Graphite Project as at 1 January 2021. The estimates of mineralisation have not been reported in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, 2012 (JORC Code) and the Australian Securities Exchange Listing Rules. The estimates of mineralisation are reported in accordance with the rules for reporting a foreign and historical estimate (ASX listing rules 5.12). Under ASX listing rule 5.12 (LR 5.12), an entity reporting a foreign and/or historical estimate of mineralisation in relation to a material mining project must include all of the information shown in LR 5.12 (see Appendix 1). A summary of JORC Table 1, which is included in Appendix 3, is provided below for compliance and in-line with requirements of ASX LR 5.8.1.

Volt appointed Wardell Armstrong International (WAI) to provide ongoing technical (geology, mining, environment) assistance for exploration and resource delineation at the Zavalievsky Graphite Project. WAI has completed a review of the Zavalievsky Graphite Project for Volt, which included compiling and summarising data from available reports. The information in the sections below have all been obtained from the reports as named.

Geology and Mineralisation Interpretation

The Zavalievsky Graphite Project is located on the flanks of the large Khashchevato - Zavalevskoy synclinal folded structure. The graphite mineralisation is confined to the Precambrian basement and is overlain by sedimentary cover of 10 to 45m thickness. Seven steeply dipping to vertical, graphite mineralised domains were interpreted using a nominal 2% total carbon grade. The interpreted mineralisation has an along-strike length of 2,120m, a width of 630m and extends to a depth of 215m.

Drilling Techniques

Drilling was undertaken from 1955 to 1982 using ZIF-650M diamond drilling rigs with hard-alloy and diamond bits. The depth of the holes ranged from 36m to 481m. Due to the steep dip of the mineralised domains (-80° to vertical), inclined exploration drillholes were drilled with an initial drilling angle of 70° to 75°. 121 diamond holes have been drilled for 18,185.50m in the south-eastern area of the Zavalievsky Graphite Project (on 15 sections) and were used to define the foreign and historical. Drillholes are generally spaced at 25 to 50m on sections that are 100 to 200m apart.

Sampling Techniques

Diamond core samples have been typically collected in intervals of 3m where possible, with a minimum sample length of 0.30m and a maximum sample length of 4.60m. The drill core was cut in half along its length to produce half core for sample preparation (crushing/pulverising) to produce a final sub-sample for laboratory analysis.

Sampling Analyses

Details of the analysis techniques have not been provided in the available documentation. The foreign and historical mineralisation estimate is reported as "$C_{average}$%". To the best of WAI's knowledge this is the total graphitic carbon content in the mineralisation.

Estimation Methodology

The foreign and historical mineralisation quantity was estimated using a polygonal method. Geological interpretations were prepared on 15 cross sections and seven graphite mineralised domains were interpreted using a nominal 2% total carbon grade. Half the distance between the sections and average true thickness was used to determine volumes of mineralisation. Tonnage estimates are adjusted annually to exclude mined material. Drill data was composited to 10 m intervals to align with production bench heights. The section spacing ranges from 100 to 200 m and the maximum extrapolation is recorded as half the section spacing (i.e. 100m).

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Cut-off Grade

The foreign and historical estimate for the graphite mineralisation at the Zavalievsky deposit has been reported above a cut-off grade of 2% $C_{average}$%".

Mineral Resource Classification

Mineral Resources classified in accordance with the JORC Code have not been defined.

Mining Factors

The foreign and historical estimate was prepared with open pit mining as the most likely and appropriate method of extracting the mineralisation given the existing open pit mine. The Competent Person considers open pit mining shall continue as the most likely and appropriate mining method for potential extraction of the graphite mineralisation.

Metallurgical Factors

The available documentation reports that the mineralisation types are all characterised by crystals (flakes) of graphite of an elongated smoothed hexagonal shape, ranging in size from 0.011 mm to 3 mm. In all samples, the >0.25 mm fraction predominates (74% for fresh rock over 90% for the weathered and partially weathered material). The content of volatiles (2 to 4%) is explained by the fact that the graphite is present in undisturbed aggregates and contains undisclosed micro-inclusions, as well as by the absorption of fluorine during chemical decomposition.

-ENDS-

Authorised for release by the board of Volt Resources Ltd

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About Volt Resources Limited

Volt Resources Limited ("Volt") is a graphite producer/developer and gold exploration company listed on the Australian Stock Exchange under the ASX code VRC. Volt has a 70% controlling interest in the Zavalievsky Graphite business in Ukraine. Zavalievsky is in close proximity to key markets with significant developments in LIB facilities planned to service the European based car makers and renewable energy sector. Zavalievsky benefits from an existing customer base and graphite product supply chains based on excellent transport infrastructure covering road, rail, river and sea freight combined with reliable grid power, ample potable ground water supply and good communications. Zavalievsky has current plans to install a processing plant and equipment in order to commence production of spheronised purified graphite (SPG) for the European LIB market within the next 12 months[2].

Volt is also progressing the development of its large wholly-owned Bunyu Graphite Project in Tanzania, as well as gold exploration in Guinea leveraging the Company's existing extensive networks in Africa.

The Bunyu Graphite Project is ideally located near to critical infrastructure with sealed roads running through the project area and ready access to the deep-water port of Mtwara 140km from the Project. In 2018, Volt reported the completion of the Feasibility Study ("FS") into the Stage 1 development of the Bunyu Graphite Project. The Stage 1 development is based on a mining and processing plant annual throughput rate of 400,000 tonnes of ore to produce on average 23,700tpa

[2] Refer to Volt's ASX announcements titled "Volt to Acquire European Graphite Business following Completion of Due Diligence" dated 14 May 2021 and "Completion of the ZG Group Transaction Following Execution of New Convertible Securities Facility" dated 26 July 2021.

of graphite products[3]. A key objective of the Stage 1 development is to establish infrastructure and market position in support of the development of the significantly larger Stage 2 expansion project at Bunyu.

The Guinea Gold Projects comprise 6 permits in Guinea, West Africa having a total area of 348km. The Projects are located in the prolific Siguiri Basin which forms part of the richly mineralised West African Birimian Gold Belt.

Competent Person's Declaration

The information in the Zavalievsky Graphite Project statement which relates to exploration results is based upon details compiled from the available documentation by Mr Mark Kenwright, who is a Fellow of the Australian Institute of Mining and Metallurgy. Mr Mark Kenwright is an employee of Wardell Armstrong International and has sufficient experience which is relevant to the style of mineralisation and the 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 (the JORC Code). Mr Mark Kenwright confirms that the information included in this announcement in respect of the mineralisation at the Zavalievsky Graphite Project is an accurate representation of the available data and studies.

[3] Refer to Volt's ASX announcement titled "Positive Stage 1 Feasibility Study Bunyu Graphite Project" dated 31 July 2018. The Company confirms that it is not aware of any new information or data that materially affects the information included in this document and that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed.

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Appendix 1: Reporting of a foreign and/or historical estimate

Under ASX Listing Rule 5.12 (LR 5.12), an entity reporting a foreign and/or historical estimate of mineralisation in relation to a material mining project must include all of the information shown in LR 5.12. Volt considers the Zavalievsky Graphite Project to be a material mining project, and as such provides the following information regarding the Zavalievsky Graphite Project in accordance with LR 5.12. The Zavalievsky Graphite Project is both a foreign and a historical estimate. Table 2 below provides declarations in line with rule 5.12 of the ASX Listing Rules.

Australian Securities Exchange Listing Rules Chapter 5.12 - Reporting requirements for a foreign and/or historical estimate		
ASX Listing rule	**ASX Explanation**	**Commentary**
5.12.1	*The source and date of the historical estimates or foreign estimates.*	The Zavalievsky Graphite Project foreign and historical mineralisation estimate was sourced from the report titled '*Update of geological and economic estimation of ore reserves to produce graphite concentrate, garnet ores as an abrasive material, calciphyre, charnokite used to produce crushed stone and rubble stone of the Zavalyevskoye South-East site in the Gaivoronsky district of the Kirovograd region (ORE as of 01.01.2018)',* 2018. The foreign and historical estimates have been subsequently modified due to mining activities to 2020 as reported in the 5G forms prepared in accordance with the GKZ standard and dated 2017, 2018, 2019 and 2020 (dated 01.01.2021).
5.12.2	*Whether the historical estimates of foreign estimates use categories of mineralisation other than those defined in Appendix 5A (JORC Code) and if so an explanation of the differences.*	The Zavalievsky Graphite Project mineralisation estimates are stated as "reserves" and classified according to the A+B+C1+C2 classification which was derived from the Russian system and is still applied throughout many countries in eastern Europe. The reserves have to be approved by the official Commission for Ore Reserves in Russia. The A, B, C1 and C2 categories reflect the levels of confidence in the tonnage exploited from a reserve with confidence levels being 95%, 80%, 70% and 30% respectively. Henley (2010, presentation at CRIRSCO meeting) has evaluated the classification system with respect to the compliant codes in Australia and Canada and concluded that A+B is comparable to Measured, C1 to Indicated and C2 to Inferred. However, these comparisons are only an approximation and cannot be considered equivalents. Furthermore, WAI notes that in their experience, following classification in accordance with the JORC Code, up to 50% of the C2 category can be downgraded to an Exploration Target category, and so this equivalence cannot be relied upon.
5.12.3	*The relevance and materiality of the historical estimates or foreign estimates to the entity.*	The foreign and historical estimates are relevant and material to Volt as they pertain to a project that could be economically viable for Volt.

5.12.4	*The reliability of the historical estimates or foreign estimates, including by reference to any of the criteria in Table 1 of Appendix 5A (JORC CODE) which are relevant to understanding the reliability of the historical estimates or foreign estimates.*	All criteria in Sections 1 and 2 of JORC Table 1 are included in Appendix 3. The estimates are not reported in accordance with the JORC Code (2012). A Competent Person has not done sufficient work to classify the foreign and historical estimates as current Mineral Resources or Ore Reserves in accordance with the JORC Code (2012). A summary of items relevant to understanding of the foreign and historical estimate are included below:
		• Geological interpretations were prepared on 15 cross-sections.
		• Seven graphite mineralised domains were interpreted using a nominal 2% total carbon grade.
		• The dimensions of the interpreted graphite mineralisation are as follows.
		  ○ Length (surface) – 2,120 m
		  ○ Width (surface) – 630 m
		  ○ Depth – 215 m
		  ○ surface area – 1,339 km².
		• The foreign and historical mineralisation was estimated using a polygonal methodology.
		• Geological interpretations were prepared on 15 cross-sections.
		• Half the distance between the sections and average true thickness was used to determine volumes of mineralisation. Tonnage estimates are adjusted annually to exclude mined material. Drill data was composited to 10 m intervals to align with production bench heights.
		• Section spacing ranges from 100 to 200 m. Maximum extrapolation is

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<tr>
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recorded as half the section spacing (i.e., 100 m).
• AutoCAD 2012 software was used.
• It is not known from the available documentation if:
  ○ top-cut grades were applied
  ○ check estimates are available
  ○ recovery of by-products has been considered
  ○ deleterious variables have been estimated.
• Selective mining units have not been modelled.
• Moisture contents of 6.5% have been documented for the loose (rippable) mineralisation and 7% for the other mineralisation types.
• The foreign and historical mineralisation estimate is reported as "$C_{average}$%". To the best of WAI's knowledge this is the total graphitic carbon content in the mineralisation.
• The available documentation reports that the mineralisation types are all characterised by crystals (flakes) of graphite of an elongated smoothed hexagonal shape, ranging in size from 0.011 mm to 3 mm. In all samples, the >0.25 mm fraction predominates; no regular changes of graphite grain size due to weathering is observed in ordinary samples. The content of volatiles is explained by the fact that the graphite is present in undisturbed aggregates and contains undisclosed micro-inclusions, as well as by the absorption of fluorine during chemical decomposition. The physical properties of graphite by type of material are given in the Table below.
Physical Properties of Graphite
<table>
<tr><th rowspan="2">Type</th><th colspan="4">Granulometric composition by fraction %</th><th rowspan="2">Moisture %</th><th rowspan="2">Ash content %</th><th rowspan="2">Volatility %</th></tr>
<tr><th>0.5 mm</th><th>0.25 to 0.5 mm</th><th>0.1 to 0.5 mm</th><th>≤0.1 mm</th></tr>
<tr><td>"loose ores" (rippable)</td><td>57.6</td><td>36.0</td><td>5.4</td><td>1.0</td><td>6.5</td><td>4</td><td>2.2</td></tr>
<tr><td>"semi-friable ores" (partially weathered)</td><td>67.0</td><td>25.5</td><td>5.7</td><td>1.8</td><td>7.0</td><td>2.5</td><td>2</td></tr>
<tr><td>"dense ores" (primary)</td><td>32.5</td><td>42.0</td><td>23.2</td><td>2.3</td><td>7.0</td><td>5</td><td>4</td></tr>
</table>
• Bulk density recorded in the available documentation is
  • Graphite is - 0.5 g/cm^3
  • Rupicolous rocks - 2.0 g/cm^3
  • Granite - 2.6 g/cm^3
  • Kaolinite - 2.3 g/cm^3
  • Soil - 1.3 - 1.5 g/cm^3.
It is unclear from the available records how this was measured and whether this was wet (natural moisture) or dry.
</td>
</tr>
<tr>
<td>5.12.5</td>
<td>To the extent known, a summary of the work programs on which the historical estimates or foreign estimates are based and a summary of the key assumptions, mining and processing parameters and methods used to prepare the historical estimates or foreign estimates.</td>
<td>A summary of past work programs is provided in the announcement.</td>
</tr>
<tr>
<td>5.12.6</td>
<td>Any more recent estimates or data relevant to the reported mineralisation available to entity.</td>
<td>No more recent estimates or data relevant to the foreign and historical estimates are available to the Company.</td>
</tr>
<tr>
<td>5.12.7</td>
<td>The evaluation and/or exploration work that needs to be completed to verify the historical estimates or foreign estimates as mineral resources or ore reserves in accordance with Appendix 5A (JORC Code).</td>
<td>Volt plans to:
• Compile the historical data into a digital database
• Obtain detailed topographical data
• Drill verification holes
• Undertake infill drilling if required
• Undertake geological modelling
• Complete a Mineral Resource estimate that is reported and classified in accordance with the guidelines of the JORC Code.
As the Project contains an Industrial Minerals Resource for graphite, in terms of the JORC Code 2012 Clause 49, Volt intends to undertake metallurgical testwork to determine product specifications and product marketability.</td>
</tr>
<tr>
<td>5.12.8</td>
<td>The proposed timing of any evaluation and/or exploration work that the entity intends to undertake and comment on how the entity intends to fund</td>
<td>Volt is planning to undertake verification drilling and to complete the above work (LR 5.12.7) for estimation of a JORC compliant Mineral Resource estimate, which is anticipated to be completed by the end of 2023.
Funding for this work will be from existing working capital.</td>
</tr>
</table>

	that work.	
5.12.9	*A cautionary statement proximate to, and with equal prominence as, the reported historical estimates or foreign estimates.*	Volt cautions that the foreign and historical estimates for the project are not reported in accordance with the JORC Code (2012). A Competent Person has not done sufficient work to classify the mineralisation estimates as Mineral Resources in accordance with JORC Code. It is uncertain that following evaluation or further work that the foreign and historical estimates will be able to be reported as Mineral Resources in accordance with the JORC Code.
5.12.10	*A statement by a named competent person or persons that the information in the market announcement provided under rules 5.12.2 to 5.12.7 is an accurate representation of the available data and studies for the material mining project. The statement must include the information referred to in rule 5.22(b) and (c)*	The Competent Person's statement is included in the announcement.

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Appendix 2 – Summary of available drillhole information

Drillhole name	Easting	Northing	Elevation	Depth (m)	Year
9	516647.0	123710.5	140.22	130.3	1955
9N	516544.1	123666.1	135.59	159.5	1955
9A	516545.8	123666.9	135.59	122.3	1955
10	516498.6	123645.7	133.38	155.2	1955
11	516413.7	123607.1	127.40	120.3	1955
26	516589.9	123685.8	137.97	150.4	1955
33	516445.7	123621.2	130.02	180.0	1955
15814	516470.7	125489.2	138.46	192.5	1974
15815	516510.8	125509.7	138.96	220.8	1974
15816	516358.0	124454.7	58.24	184.5	1974
15817	516557.8	125495.9	139.47	214.3	1974
15818	516327.7	124443.4	59.17	36.0	1974
15819	516644.9	125500.3	140.40	81.5	1974
15820	516299.3	124435.5	59.58	85.0	1974
15821	516299.3	124436.5	59.38	125.0	1974
15823	516270.1	124427.5	59.89	83.0	1974
15853	516313.1	124552.0	47.78	201.1	1977
15854	516282.3	124548.5	46.60	94.5	1977
15855	516351.0	124568.7	48.83	221.0	1977
15855a	516351.0	124570.2	48.83	320.0	1977
15856	516311.4	124552.6	47.78	173.2	1977
15857	516247.5	124661.7	46.45	125.0	1977
15858	516291.1	124677.6	49.09	124.4	1977
15859	516356.2	124460.5	47.36	191.0	1977
15860	516291.1	124679.1	49.09	112.3	1977
15861a	516421.5	124487.0	61.20	194.7	1977
15862	516297.0	124677.5	49.30	100.4	1977
15863	516310.0	124680.5	49.39	193.6	1977
15864	516378.6	124465.1	47.86	162.2	1977
15865	516319.0	124686.0	49.94	156.2	1977
15866	516441.5	124047.8	52.77	153.3	1977
15867	516370.6	124892.3	77.30	118.0	1977
15868	516499.5	124092.4	59.50	158.5	1977
15869	516416.0	124269.2	48.90	127.2	1977
15870	516234.4	123946.3	109.70	83.8	1977
15871	516188.9	125245.0	110.06	95.5	1977
15872	516443.3	124281.7	51.40	182.5	1977
15873	516519.7	124126.6	59.64	180.0	1977
15874	516129.4	125223.3	126.88	74.4	1977
15875	516017.4	124393.5	135.18	101.4	1977
15876	516008.3	124588.1	135.00	97.0	1977
15877	516466.3	124074.5	54.85	221.7	1977
15878	516471.9	124293.3	52.42	196.1	1977
15879	516386.8	125373.4	127.29	218.0	1977
15880	516421.1	125295.8	127.30	232.0	1977
15881a	516343.3	124230.2	41.47	118.8	1977
15882	516298.2	124879.8	55.89	153.5	1977
15883	516454.9	125302.2	132.00	356.5	1977
15884	516303.0	124879.4	55.81	160.0	1977
15885	516556.6	124123.5	77.46	141.7	1977
15886	516367.0	125081.2	82.00	166.0	1977
15887	516323.2	124880.3	55.59	174.0	1977
15901	516386.1	124159.3	35.41	175.0	1979
15902	516365.1	124157.7	35.31	128.2	1979
15903	516392.6	124023.5	35.15	103.0	1979
15904	516417.2	124008.8	35.78	71.1	1979
15905	516382.2	124166.4	35.18	137.1	1979
15906	516417.8	123988.8	36.37	124.5	1979
15907	516268.2	124673.7	23.64	84.5	1979
15908	516275.6	124880.5	48.08	110.0	1979
15909	516271.1	124624.7	23.03	71.8	1979

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15910	516247.0	124662.6	22.63	84.6	1979
16001	516257.6	124668.2	22.63	96.2	1979
16002	516257.6	124647.2	22.92	94.0	1979
16003	516261.7	124668.8	22.86	129.3	1979
16004	516432.8	124904.5	86.34	153.2	1979
16005	516427.4	124729.1	72.90	91.2	1979
16006	516423.4	124732.7	72.55	84.0	1979
16007	516493.1	124920.2	108.57	129.9	1979
16008	516503.5	124921.3	108.97	60.7	1979
16009	516523.9	124497.4	87.72	77.8	1979
16010	516519.1	124498.7	87.87	102.2	1979
16011	516416.0	125082.5	95.42	99.5	1979
16012	516450.0	125089.5	105.33	138.0	1979
16013	516496.0	125098.0	115.01	64.8	1979
16014	516500.9	125096.9	115.40	106.0	1979
16015	516309.7	123917.4	77.09	84.8	1979
16016	516160.7	124255.3	105.61	81.5	1979
16017	516398.3	124714.8	63.56	475.0	1980
16018	516459.8	124493.6	67.54	184.5	1980
16019	516547.1	124118.5	55.25	481.0	1980
16035	516352.7	124802.9	54.86	234.0	1980
16036	516300.8	124793.5	42.30	234.8	1980
16037	516521.3	123835.9	79.62	208.0	1980
16038	516276.4	124780.1	28.41	95.0	1980
16039	516507.3	123815.6	79.18	165.2	1980
16040	516079.7	124361.3	133.37	122.4	1980
16041	516505.7	123814.4	79.51	177.4	1980
16042	516041.9	124600.6	125.79	133.0	1980
16043	516038.5	124718.0	132.33	130.0	1980
16044	516062.6	124828.5	129.37	120.0	1980
16045	516451.9	123775.4	82.24	125.0	1980
16046	516044.1	124471.1	130.24	130.0	1980
16047	516292.8	124435.6	16.07	115.5	1980
16048	516376.1	123773.9	86.74	100.4	1980
16049	516251.5	124420.0	31.90	95.0	1980
16050	516225.6	124530.3	25.24	95.0	1980
16051	516599.0	123891.6	102.78	197.5	1980
16052	516283.5	124311.6	38.52	95.5	1980
16053	516321.8	123993.4	61.00	76.0	1980
16054	516274.6	124858.6	46.84	111.5	1980
16055	516371.0	124805.9	54.11	150.5	1980
16056	516639.0	124173.6	104.53	142.0	1980
16057	516637.6	124173.5	104.65	138.0	1980
16067	516472.1	125101.5	109.25	269.0	1980
16070	516337.0	124894.9	48.50	146.5	1980
16081	516419.0	124363.2	35.75	176.7	1980
16082	516410.3	124356.2	36.03	99.8	1981
16083	516351.2	124334.1	18.47	148.0	1981
16084	516350.3	124337.8	17.57	196.8	1981
16085	516343.3	124306.5	18.70	156.0	1981
16088	516508.1	125098.0	115.90	257.0	1981
16106	516277.0	125290.8	97.16	142.0	1982
16107	516275.0	125290.8	97.20	131.0	1982
16110	516277.9	125314.8	95.76	172.0	1982
14569	516649.1	123604.4	137.76	212.8	1973
14573	516614.2	123584.8	135.36	230.0	1973
14576	516589.3	123568.4	133.30	213.0	1973
15888	516551.6	123545.2	130.02	236.8	1978
16072	516481.8	123509.4	124.82	161.9	1980
16074	516362.9	123408.1	116.95	101.0	1980

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Appendix 3

JORC Code, 2012 Edition – Table 1

The following table provides a summary of important assessment and reporting criteria used for the reporting of the Zavalievsky Graphite Project mineralisation estimates in accordance with the Table 1 checklist in The Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code, 2012 Edition) on an 'if not, why not' basis. The information in this table has been sourced by Wardell Armstrong International (WAI) from the report titled '*Update of geological and economic estimation of ore reserves to produce graphite concentrate, garnet ores as an abrasive material, calciphyre, charnockite used to produce crushed stone and rubble stone of the Zavalyevskoye South-East site in the Gaivoronsky district of the Kirovograd region (ORE as of 01.01.2018)*', 2018.

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *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.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *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.*	• All samples have been collected using diamond drilling. • Drilling was used to obtain predominantly 3.0 m samples (minimum length 0.3 m to a maximum of 4.6 m) that were subsequently cut in half along its length to produce half core for sample preparation (crushing/pulverising) to produce a final sub-sample for laboratory analysis. • Data is from holes drilled during from 1955 to 1982.
Drilling techniques	• *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).*	• Drilling was carried out with ZIF-650M diamond drilling rigs with hard-alloy and diamond bits. The holes were flushed with drilling mud. For weathered rock and loose material, the drillholes were drilled with hard-alloy bits with a diameter of 112-93 mm; for dense fresh, material diamond bits with a 79-59 mm diameter were used. • A total of 121 holes have been drilled for 18,185.50m in the south-eastern area (on 15 sections).
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.*	• Drill recovery averaged approximately 87.4% (weathered – 84.4%, partially weathered – 86.4%, fresh – 90.5%). • In order to maximise the core recovery, drilling was carried out using the following technological measures: limiting the supply of drilling fluid when drilling in loose and fractured formations, drilling with shortened runs, reducing the number of drill string revolutions, using special polyacrylic drilling fluids, and using a

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Criteria	JORC Code explanation	Commentary
	• *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.*	universal core set. • A relationship between core recovery and graphite content and the selective abrasion of graphite during drilling has not been established.
Logging	• *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.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• In the process of detailed exploration of the Zavalievsky field, 337 drillholes were geologically logged, which is 91.3% of the total number of holes and 82% of the total metreage. Of these, data from 121 drillholes were used to determine the foreign and historical mineralisation estimate.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *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.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• Drill core was cut lengthways along its long axis with half core used for primary analysis and the other half retained for reference purposes. • It is reported that sampling and sample preparation were carried out in accordance with the company's procedures. Further details have not been provided. • Duplicate samples were taken for QAQC analysis. .

Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*
	• *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.*
	• *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.*
		• The analysis procedures are not discussed in the available documentation.
		• Internal and external duplicate assays of pulverised material were used for QAQC analysis.
		  ○ Internal control – 148 assays (5.2% of the total number of assays)
		  ○ External control – 194 assays (6.9%).
		• The use of standard and blank samples is not discussed in the available documentation.
		• Given the historical nature of the drill data (1955 to 1982), it is expected that QAQC procedures were not as comprehensive as would currently be applied.

Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.*	• Review of available plans and cross sections indicates that twined holes have not been drilled. • In the appendix to the report details are provided regarding of

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Criteria	JORC Code explanation	Commentary
	• *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	verification of data from geological documentation of drillholes from 1973, 1974, 1977, 1979, 1980, 1981. Details of this verification are: ○ In order to check the reliability of chemical analyses, the laboratories of the Zaval'evsky Combine and "Severukrgeologiya" re-analysed samples. ○ For this purpose, both internal and external control was carried out. ○ Internal control was carried out by reanalysis of encrypted duplicate samples at the main laboratory. In total, 148 analyses were carried out for the purpose of internal control of the laboratory's work, which is 5.2% of the total number of samples. ○ External control was carried out in order to identify systematic errors in the main laboratory. ○ In total, 194 samples were analysed for external control, accounting for 6.9% of the number of main samples. ○ For both internal and external control, the mean absolute error in each sample does not exceed the permissible deviation (16.0%) and fluctuates within 0.04-13.03%. ○ There is no pattern in the direction of overestimation or underestimation of control analyzes. ○ There is no mention of adjustments to assay data in the available documentation.
Location of data points	• *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.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• The drillholes are referenced on topographic plan of 1:1,000 and 1:2,000. • The survey was carried out in the local coordinate system, namely the Baltic elevation system.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *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.* • *Whether sample compositing has been applied.*	• Exploration data is from 25 to 50m spaced drillholes on 100 m spaced sections for the GKZ B category mineralisation and is 25 to 50m spaced drillholes on 200 m spaced sections for the GKZ C1 category mineralisation. • There is no mention of sample compositing in the available documentation. Assay data was composited to 10 m bench heights for the mineralisation estimation.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *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.*	• The mineralised domains are steep to vertical and, as appropriate, inclined holes have been drilled. It is unlikely that a sample bias will have been introduced.
Sample security	• *The measures taken to ensure sample security.*	• There is no mention of sample security in the available documentation.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• There have been no external reviews or audits of sampling techniques and data.

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Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *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.* • *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.*	• License: Registration number №430, Order dated 25.11.2015 No. 384 • Date of issue 23 January 1996. The license has an expiry date of 25 November 2035 and covers an area of 134.5 hectares. • Owner: PJSP Zavalevsky Graphite Plant, code 00282056, 26334, Kirovograd region., Gaivoronsky district, town Zavalye, Oktyabrskaya street, 14. • Purpose – Mining. Extraction of graphite ores for the manufacture of graphite concentrate, garnet ores, suitable as abrasive raw materials; calciphyres, charnockites, suitable for the production of crushed stone and rubble stone. • The Zavalevskoye field South-Eastern area is located in Kirovograd region, Gaivoronsky district, southeast outskirts of the village of Zavalla. • License area coordinates: 1) 48°12'34''N, 30°00'46''E; 2) 48°12'54''N, 30°01'02''E; 3) 48°12'53''N, 30°01'19''E; 4) 48°12'46''N, 30°01'40''E; 5) 48°12'48''N, 30°02'03''E; 6) 48°12'25''N, 30°02'23''E; 7) 48° 12'23'N, 30°02'14''E; 8) 48°12'23'N, 30°01'59''E; 9) 48°12'24'N, 30° 01'22''E.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• In 1928-1929 the first prospecting works were carried out. As a result, the "Main" and "South" graphite areas were discovered. • In 1930, a detailed exploration of the "Main" site was carried out using hand drilling. Reserves in category A2 approved by the GKZ in the amount of 2,915 thousand tonnes were defined. • 1945-1955 geological exploration works by the trust "Ukrnerud" of the MPSM USSR. A total of 37,000 metres of drilling were completed. • 1955 - definition of reserves in categories A + B + C1 in the GKZ of the USSR (protocol No. 786 dated October 8, 1955) in the amount of 40,020kt in the Khutor Andreevka, Yugo-Vostochnaya, and Yuzhnaya lane sections, Zavalevskoye field. • In 1961, the area of the Zavalevskoye field was covered by geological surveys at a scale of 1: 50,000. • 1971 - preliminary exploration of the "Promezutochnaya" area was completed. • 1971-1982 - The Pravoberezhnaya Geological Exploration Organization VOO "Severukorgeologya" carried out detailed exploration of the Promezutochnaya area, deep horizons of the section, the Pravoberezhnaya section, reassessment of reserves was carried out in accordance with new standards (GKZ USSR Protocol No. 1656-k dated 25.12.1981) of the Khutor Andreevka and Yuzhnaya lane sections. • In 1982 - reserves defined for the South-Eastern section (GKZ USSR Protocol No. 9100 dated November 3, 1982).
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The Zavalievsky Graphite Project is located on the flanks of the large Khashchevato- Zavalevskoy synclinal folded structure. • The graphite mineralisation is confined to the Precambrian basement and is overlain by sedimentary cover of 10 to 45 m thickness.
Drillhole Information	• *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:* ○ *easting and northing of the drill hole collar*	• All available drillhole information has been included in Appendix 2.

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Criteria	JORC Code explanation	Commentary
	○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* ○ *dip and azimuth of the hole* ○ *down hole length and interception depth* ○ *hole length.* • *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.*	
Data aggregation methods	• *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.* • *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.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• Not relevant – a foreign and historical estimate is defined. Exploration results are not being reported.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *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').*	• Due to the steep dip of the graphite mineralisation (-80° to vertical), inclined exploration drillholes were drilled with an initial drilling angle of 70° to 75° to the mineralised horizon. • The drillholes were orientated across the strike of the mineralised zone.
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.*	• A plan and example cross-sections are included in the announcement.
Balanced reporting	• *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.*	• Not relevant – a foreign and historical estimate is defined. Exploration results are not being reported.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations;*	• Not relevant – a foreign and historical estimate is defined. Exploration results are not being reported.

Criteria	JORC Code explanation	Commentary
	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.	
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Further work to test for mineralisation extensions has not yet been planned. • Volt intends to focus on verification drilling and estimation of a Mineral Resource that is reported and classified in accordance with the guidelines of the JORC Code.

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