ASX Announcement

ASX RELEASE

16 August 2023

ABN: 45 116 153 514

ASX: TMX

Gallium (Ga) Discovered at Smokebush RC drilling campaign

Terrain Minerals Limited (ASX: TMX) (Terrain) is pleased to announce the multi-element assay results returned from the Company's Phase 1 pegmatite drilling at its 100% owned Smokebush Project, located 350km north of Perth Western Australia.

Terrain has successfully identified multiple zones of Gallium (Ga2o3) mineralisation hosted in mafic units at Rabbit Warren & Paradise City.

Highlights:

- Rabbit Warren Prospect
  - **10m @ 37.6 g/t Ga2o3** within **86m @ 17.4 g/t Ga2o3** from surface – 23SBRC001
- Paradice City Prospect
  - **4m @ 28.2 g/t Ga2o3** within **30m @ 20.1 g/t Ga2o3** from 80m - 23SBRC002
  - **9m @ 30.9 g/t Ga2o3** within **16m @ 24.1 g/t Ga2o3** from 11m **–** 23SBRC005
  - **7m @ 30.9 g/t Ga2o3** within **11m @ 28.2 g/t Ga2o3** from surface – 23SBRC007

- Gallium is a critical metal used in the defence industry (refer to diagram 1) and computer chip, semi-conductors, transistors, including light emitting diodes (LED) and electronic circuitry.

- Until 1 August 2023, China was ostensibly the sole supplier to Gallium to the semiconductor industry, producing a staggering 98% of the world's supply of raw Gallium (refer to diagram 3).

- China's strict export bans of Gallium came into effect on 1 August 2023.

- It is anticipated that USA and European semiconductor chip makers will actively seek to establish long term supply contracts with future Gallium suppliers (outside of China), such as Australia.

- Terrain is rapidly expanding its Gallium (and Germanium) focus to dove-tale with the exponential growth of generative AI (and the associated demand for semiconductor).

Gallium's Revolutionary Properties: The chemical and physical properties of gallium makes it well suited for use in high-performance applications such as advanced military equipment. Gallium may be combined with other materials to produce a special class of chips known as wide bandgap semiconductors. These chips can handle higher temperatures, voltages, and frequencies than conventional silicon chips, making them smaller, faster, and more efficient.

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Gallium is a crucial element in the defence and advance electronics (such as semiconductors) industries. Until recently, China was the dominant global supplier and the likely sole supplier to many American and European semiconductor manufacturers.

This changed on 1 August 2023 when China imposed a strict ban on all exports of Gallium (and Germanium (Ge)). Terrain is now retesting assays for Germanium.

The ban by China on all Gallium exports is expected to create significant supply chain issues for every non-Chinese semiconductor manufacturer around the world, given that there is presently no obvious alternate Gallium supplier of scale. This comes at a time when the generative AI (artificial intelligence) industry is growing exponentially, accompanied by an equal exponential growth in the demand for of semiconductors (and by extension, demand for elements such as Gallium).

By positioning itself as a first mover in the Gallium exploration sector, Terrain is seeking to place itself at the forefront of this globally important and crucial market with the goal of potentially becoming a preferred future supplier to the USA and European semiconductor chip makers over the medium term.

In line with the Company's increased attention on Gallium and Geranium (in addition to its congoing work for other critical minerals such as rare earth elements at its 100% owned Lort River Project near Esperance, Western Australia), Terrain is routinely assaying for such elements as part of its recently completed Phase 2 drilling program at Smokebush.

Additionally, Terrain is undertaking a series of investigations as to the preferred host lithologies and geological setting for Gallium and Geranium within its existing portfolio of tenements for the purposes of testing for higher grades of these crucial metals, with a particular emphasis on areas that are prospective for complementary mineralisation such as rare earth elements and base metal mineralisation. This would include potential copper target at Larins Lane (refer to diagram 2) as well as the Company's Lort River project. The Company's Carlindie Project in the Pilbara also poses as a potentially attractive Gallium target (in addition to the Carlindie Project's potential for lithium and iron ore mineralisation).

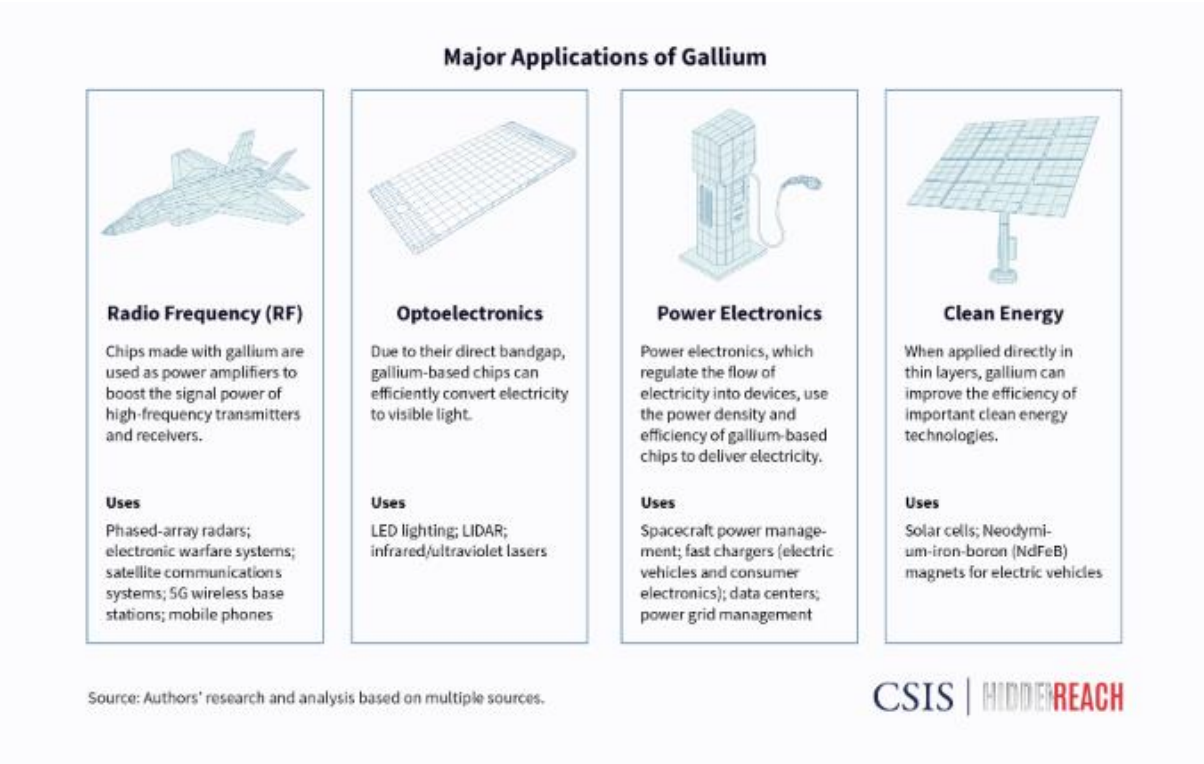

Diagram 1: Major Applications for Gallium (reference as listed in diagram 3).

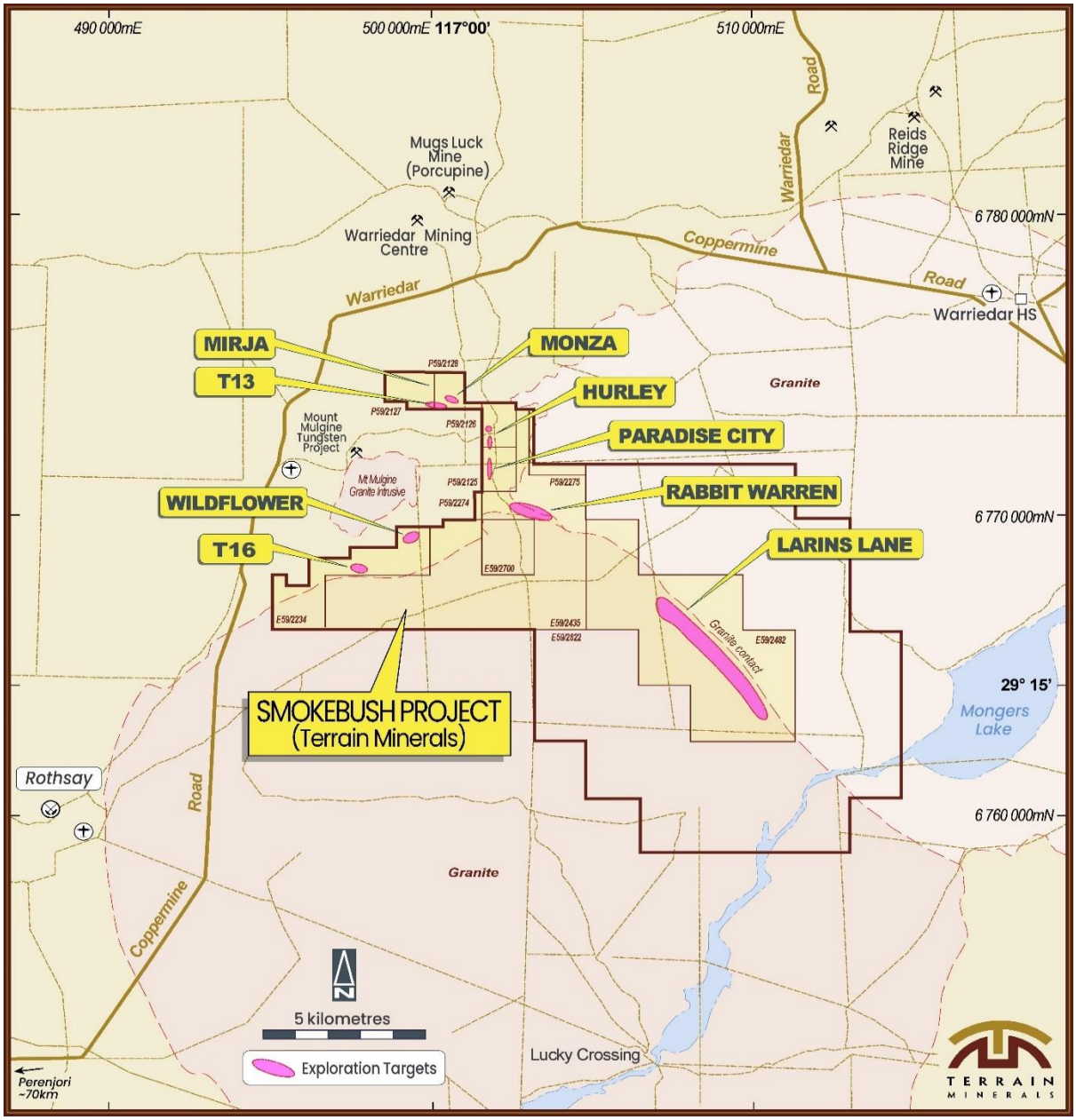

Diagram 2: Indicative location of the various prospects within Terrain Mineral's Smokebush tenement area, located 350 kilometres north of Perth, Western Australia.

What is Gallium (Ga)

Gallium is a chemical element with the symbol Ga and atomic number 31. Gallium is in group 13 of the periodic table and is similar to the other metals of the group (aluminium, indium, and thallium). Since its discovery in 1875, gallium has widely been used to make alloys with low melting points. It is also used in semiconductors, as a dopant in semiconductor substrates.

Gallium is a soft, silvery metal, at standard temperature and pressure and Elemental gallium is a liquid at temperatures greater than 29.76C (85.57F) (slightly above room temperature), where it becomes silvery white. If enough force is applied, solid gallium may fracture conchoidally. **Source:** https://strategicmetalsinvest.com/gallium-prices/

Gallium Uses

Solid gallium alloys are used in optics, electronics, and nuclear engineering because of their non-toxicity and resistance to neutron radiation and beta decay.

In addition, gallium is used in alloys with other metals such as aluminum, copper, and tin to create gallium arsenide (GaAs). This is used in semiconductor fabrication, one of gallium's most important uses. It provides a critical component in multiple steps of the manufacturing process for computer chips and other electronic devices.

Gallium nitride (GaN) is another important compound of gallium that has applications in light-emitting diodes (LEDs), laser diodes, power amplifiers, and solar cells. **Source:** https://strategicmetalsinvest.com/gallium-prices/

Picture 1: Gallium, 31 Ga

What Factors Determine the Price of Gallium

In metals, supply and demand is always in charge, and the price of Gallium is determined purely by the market.

The demand for gallium is driven by the need for the final products that use this strategic metal. As noted above, gallium has various vital uses, such as in solar panels, computer chips, and TVs. So, increased solar panel sales would lead to increased gallium demand.

The high scarcity of gallium is a crucial factor that determines the asking price. As China dominates the production of gallium, geopolitical events and export quotas also impact gallium supply.

By understanding how the supply and demand of this rare metal work, we can better understand where gallium prices are headed. **Source:** https://strategicmetalsinvest.com/gallium-prices/

Why does China produce so much Gallium

As of 2022, China produced a staggering 98 percent of the world's supply of raw gallium. This virtual monopoly is largely a result of China's position as the global leader in aluminium production— the process through which most gallium is extracted. Over the past few decades, deep government subsidies and tax incentives have fuelled the rapid rise of China's domestic metals industry, which has forced most global producers out of business, leaving China as one of the world's only remaining producers of gallium.

While relatively unknown to most people, gallium plays a critical and unique role in modern electronics supply chains, especially within the defence industry. Its unique properties allow for the production of specialized semiconductors that are vital to advanced capabilities like next-generation missile defence and radar systems, as well as electronic warfare and communications equipment. Disruptions in the gallium market could pose significant challenges for U.S. and allied defence industries and cost hundreds of billions of dollars in economic losses.

China's stranglehold on the supply of raw gallium is a critical vulnerability for the United States and its partners—one that Beijing appears poised to exploit. Fortunately, there are clear steps the United States and its allies can take to limit their exposure to China's critical mineral monopolies.

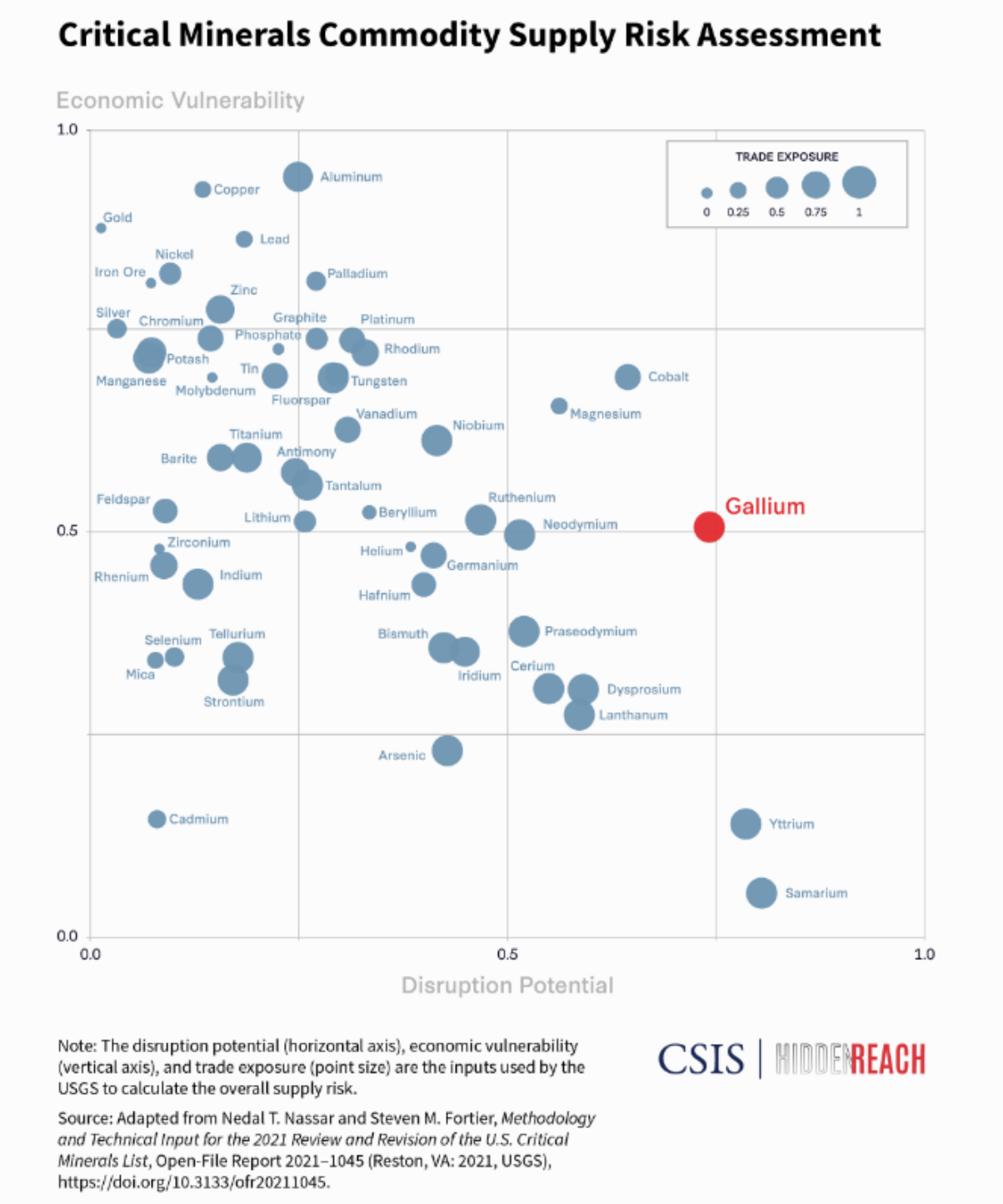

Diagram 3: Critical minerals Commodity Supply Rick Assessment.

Above information was source from an article:

De-risking Gallium Supply Chains The National Security Case for Eroding China's Critical Mineral Dominance **By:** *Matthew P. Funaiole, Brian Hart, and Aidan Powers-Riggs |* ***August 2023*** https://www.csis.org/analysis/de-risking-gallium-supply-chains-national-security-case-eroding-chinas-critical-mineral#:~:text=As%20of%202022%2C%20China%20produced,which%20most%20gallium%20is%20extracted.

Smokebush Exploration Update other activities at Smokebush:

- Larin's Lane - MMI extension program completed, assays awaiting.
- Larin's Lane – **Targeting maiden air core drilling in Sep/Oct 2023.**
- **"Results Pending"** Multiple IP Gold & Lithium pegmatite targets tested by **12 RC drill holes for 1,383m.**

Refer to ASX realise for further Smoke bush information: 14 August 2023 - Heritage approval received for maiden REE drilling at Lort River & Smokebush Exploration Update.

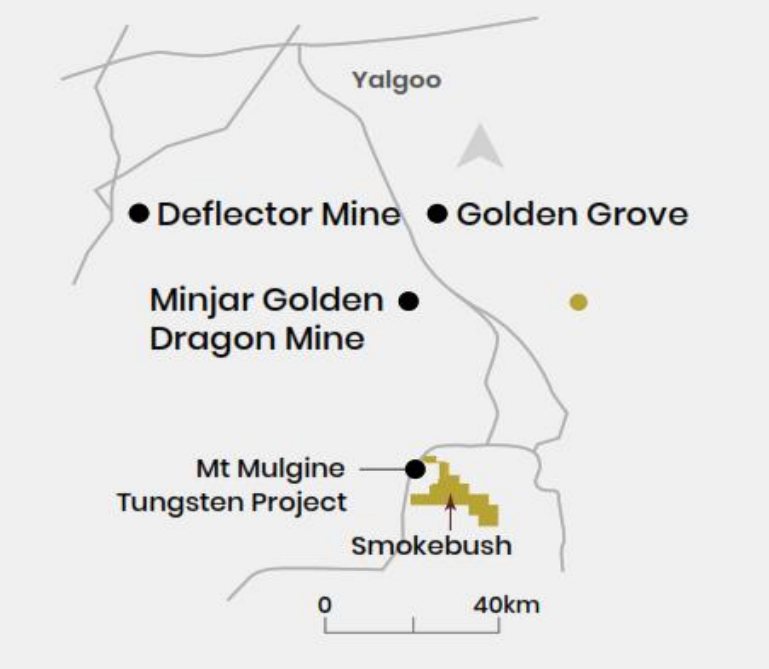

Diagram 4: Smokebush project location in relation to discoveries in the area.

Smokebush - Location & Access

The Smokebush Project area is located approximately ~350km from Perth Western Australia and 85 kilometres east northeast of the Perenjori township and 65 kilometres west of Payne's Find. Located within the Yalgoo Mineral Field. The tenements can be accessed via the unsealed Perenjori - Warriedar Road, and via extensive historical exploration grid lines, station tracks and fences lines.

The 100% owned project consist of Prospecting Licenses (P59/2125, 2126, 2127, 2128 & 2774) and Exploration Licence E59/2234, 2435, 2482, 2700 & 2822 (refer to diagram 2).

The geology of the area consists predominantly of a complexly folded, regionally metamorphosed Archaean greenstone sequence at the southern end of the Yalgoo Singleton Greenstone Belt that has been subjected to multi-phase granitoid intrusion. Located adjacent to a large tungsten resource at Mt Mulgine (Tungsten Mining NL) and a number of historic gold open pit mines (Minjar Gold Pty Ltd).

Note: For additional information refer to ASX announcement:

- **02 December 2019 -** Farm-in Agreement for the Smokebush Gold Project at Mt Mulgine, 65km West of Paynes Find WA.
- **18 December 2019 -** Smokebush Exceptional Historic Drilling Results Identified During Project Due Diligence.
- **03 March 2020 -** Exciting Results from Smokebush Gold Project.
- **08 October 2020 -** High Grade Rock Chips at Smokebush Gold Project.
- **12 October 2020** - Exciting Drilling Results at Smokebush Gold Project.
- **03 December 2020 -** New Application Granted with Exciting Historic Results at the Paradise City Gold Prospect - Smokebush Gold Project.

- **12 February 2021** - Ground Geophysics & Mapping Refines Targeting Matrix at Smokebush Gold Project.
- **17 March 2021** - Drilling & Project Update - Smokebush Gold Project.
- **22 April 2021** - 2,100m RC Drilling Program Commenced at the Smokebush Gold Project.
- **27 May 2021** - New Rock Chip Samples & Drilling Update Smokebush Gold Project.
- **19 July 2021 -** Positive First Pass Drilling Results Smokebush Gold Project.
- **13 September 2021** - New Geological Interpretation (Monza) & Exploration Update, Smokebush Gold Project.
- **23 August 2022** - New Project Calytrix & Smokebush & Wild-viper Gold Project Updates.
- **02 December 2022** - Acquisition Smokebush JV Tenement Now 100% owned.
- **06 December 2022 -** Smokebush - Pegmatite Swarms Identified, Sampling for Lithium Mineralisation Underway.
- **07 February 2023** - Smokebush – 2023 Field Season Now Underway, IP Survey & MMI Soils Programs.
- **17 March 2023** – Smokebush - IP Survey & Lithium Update Priority Gold Drill Targets Emerging.
- **02 May 2023** - Smokebush IP Survey Expanded & Update.
- **16 May 2023**- Smokebush - New Gold & Copper/Ni Anomalies.
- **22 May 2023** - 600-metre-long chargeability anomaly identified parallel to Monza Gold prospect, Smokebush Project.
- **06 June 2023** - Commencement of Pegmatite Drilling at Smokebush.
- **19 June 2023** - First phase of RC drilling successfully intersects pegmatites at Smokebush.
- **05 July 2023** - Smokebush "Phase 2" Gold & Pegmatite RC Drilling has Commenced.
- **14 August 2023 -** Heritage approval received for maiden REE drilling at Lort River & Smokebush Exploration Update.

Justin Virgin
Executive Director

For further information, please contact:

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News Highlights: Given the large number of promising exploration targets across its current flagship projects 'Smokebush' and Lort River, and with Terrains commitment of fully testing all targets in a rapid, methodically, and systemically manner, the Board anticipates exciting and regular news flow throughout the rest of 2023 and beyond.

ABOUT TERRAIN MINERALS LIMITED:

Terrain Minerals Limited (ASX: TMX) is a mineral exploration company with a Western Australian based asset portfolio consisting of:

Trade Opportunities: Terrain is always open to commercial discussions of full/partial sales and or JV of assets.

Lort River – WA Rare Earth Elements Exploration Project 100% owned. Covering 320km2 of highly prospective exploration acreage for REE within the now tightly held and emerging southern Esperance clay hosted REE province of Western Australia. Terrain is currently planning to execute a smaller proof of concept roadside (air core) drilling campaign before embarking on a larger wide spaced ~8,500m 1600m by 1600m, 60m deep air core program over tenement package. Heritage clearance for roadside drilling now approved. Secondly: Bottom of hole samples will also be separately testing for Tropical style gold and Nova style base metal targets. The Company's Lort River Project immediately adjoins Meeka Metals Limited's (ASX: MEK) Cascade REE Project and OD6 Metals Limited's (ASX: OD6) Grass Patch REE Project.

Smokebush (SB): 100% owned gold, copper and lithium exploration project located within the prospective Yalgoo Mineral Field of Western Australia. The Company's Smokebush Project neighbours Warriedar Resources Limited's (ASX: WA8) (formally Minjar, Golden Dragon Project), The Company's exploration campaigns are targeting both gold, lithium, and new Copper/Ni targets across the tenement package:

- **SB - Gold IP Survey** – IP survey program identified multiple drill targets, now drill tested with results pending.
- **SB - Lithium -** 20+ pegmatites identified, ranging up 20m wide and up to 200m long before appearing to go under cover. The pegmatite swarms run along a 4 km long zone with the most prospective targets around the Monza and Hurly areas.
- **SB - Larin's Lane** – Exceptional MMI soil sampling results identifying a hidden gold anomaly as well as an exciting 'open' Copper with associated Nickel anomaly, which remains open to the SE, the MMI soils extension program has been completed and results are now pending. Terrain intends to drill test these targets once the MMI results have defined the boundaries of target 2 (refer to diagram 8 and 10).

Calytrix Project: relinquished.

Wild Viper Project: 100% owned gold exploration project, located 70 kilometres north of Leonora, Western Australia, and incorporates the strategic land holding known as Wilsons Patch. The Company's Wild Viper Project

is strategically located and surrounds Red5 Limited's (ASX; RED) Great Western Mine as well as being adjacent to Northern Star Resources Limited's (ASX: NST) Bundarra gold deposits.

Project Review: Terrain Minerals Limited continues to investigate potential projects across various commodities including gold, copper, nickel, rare earth elements, and other industrial minerals. Western Australian based projects are the Company's current focus, but other parts of Australia are being seriously examined and considered as are other jurisdictions like Africa, Europe, and the Americas. Several Canadian Lithium opportunities are currently being reviewed.

Pending Applications: Terrain has several pending tenement (packages) applications across Western Australian and now Queensland. These applications include:

- **Biloela Copper & Gold Project** located along strike of the Cracow Gold Mine in Qld (ASX release 21 June 2023);
- **Carlindie Lithium Project** located near Lithium Power International's Tabba Tabba Lithium Project in the Pilbara WA;
- **Mukinbudin (WA) Rare Earths and Lithium Project** which neighbours Rio Tinto's landholding in the region.

The Company does not incur any holding or ongoing costs in relation to pending applications. It should be noted that there is no guarantee that pending application will be granted.

Authority

This announcement has been authorised for release by the Justin Virgin Director of Terrain Minerals Limited.

Competent Person's Statement

The information in this report that relates to Exploration Results are based on information compiled by Mr. B. Bell, who is a Member of the Australian Institute of Geoscientists and is a consultant retained by Terrain Minerals Ltd. Mr Bell is a shareholder and options holder of Terrain Minerals Ltd. Mr Bell has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. Bell consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

ASX Listing Rule 14.3

In accordance with ASX Listing Rule 14.3 and its Constitution, the Company advises that valid nominations for the position of director remain open throughout the year.

Compliance Statement

The Company notes that within the announcement, all the information is referenced directly to the relevant original ASX market releases of that technical data.

Terrain Minerals would like to confirm to readers that it is not aware of any new information or data that materially affects the information included in the relevant market announcement and, in the case of the estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

Disclaimer

Information included in this release constitutes forward looking statements. Often, but not always, forward looking statements can generally be identified by the use of forward-looking words such as "may", "will", "expect", "intend", "plan", "estimate", "anticipate", "continue" and "guidance" or other similar words, and may include, without limitation, statements regarding plans, strategies and objectives of management, anticipated production or construction commencement dates and expected costs or production outputs.

Forward looking statements inherently involve known and unknown risks, uncertainties and other factors that may cause the company's actual results, performance, and achievements to differ materially from any future results, performance or achievements. Relevant factors may include, but are not limited to, changes in commodity prices, foreign exchange fluctuations and general economic conditions, increased costs and demand for production inputs, the speculative nature of exploration and project development, including the risks of obtaining necessary licences and permits and diminishing quantities or grades of reserves, political and social risks, changes to the regulatory framework within which the company operates or may in the future operate environmental conditions including extreme weather conditions, staffing and litigation.

Forward looking statements are based on the company and its management's assumptions made in good faith relating to the financial, market, regulatory and other relevant environments that exist and effect the company's business operations in the future. Readers are cautioned not to place undue reliance on forward looking statements.

Forward looking statements are only current and relevant for the date of issue. Subject to any continuing obligations under applicable law or any relevant stock exchange listing rules, in providing this information the company does not undertake any obligation to publicly update or revise any of the forward-looking statements or advise of any change in events, conditions or circumstances on which such statement is based.

Table 1: Significant Gallium grades returned from Terrain Minerals' Phase 1 reverse circulation (RC) drilling at Smokebush Project, Western Australia.

Hole number	Easting GDA94 Zone50	Northing GDA94 Zone50	From (metres)	To (metres)	Gallium (grams per tonne)
23SBRC001	501520	6770615	0	10	28
23SBRC002	501635	6770680	98	102	21
23SBRC005	501665	6771120	15	24	23
23SBRC007	501730	6771120	0	7	23

Table 2: Drill hole information.

Hole number	Dip (degrees)	Azimuth (magnetic)	RL (metres)	Hole depth (metres)
23SBRC001	-60	250	374	188
23SBRC002	-60	270	374	110
23SBRC005	-60	180	374	62
23SBRC007	-60	270	374	98

JORC Code, 2012 Edition – Table 1 report template

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

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.*	• Reverse circulation (RC) drill samples were collected at 1 metre intervals for analysis. • No compositing of samples was undertaken. • Drill holes were located using handheld GPS • Sampling was carried out using Terrain Minerals' protocols and QAQC procedures as per current industry practice. • RC drilling was used to obtain 1 metre samples, collected through a splitter into buckets and placed in rows for geological logging. • One-metre samples are taken directly from the cyclone for subsequent analysis consistent with current industry practice. • Sample quality was supervised with any sample loss or moisture noted. • Samples are submitted to Company's preferred (and independently certified) laboratory in Perth, Western Australia where they will be dried (ALS code DRY-21), crushed (ALS code CRU-32) and pulverised (ALS code PUL-21) before being analysed using ME-MS89L (for lithium) and Au-AA24 (for gold). • Lithium analysis: Sodium peroxide fusion with ICP-MS (ALS code ME-MS89L) which, according to the laboratory, enables complete analysis of samples with resistant minerals. This fusion method of analysis is ideal when lithium is required [or for samples that contain a significant proportion of sulphides (> 4%)]. See Fusion decomposition (alsglobal.com) for more details on sodium peroxide fusion with ICP-MS analysis being used by the Company to analyse the samples referred to in this release. • Given the gold endowment of the Yalgoo-Singleton Greenstone Belt within which this drilling was undertaken, all drill samples are also being analysed for gold using fire assaying, which is considered the benchmark for gold analysis. • Gold analysis: Fire assay with ICP-AES finish of 30-gram samples

Criteria	JORC Code explanation	Commentary
		aliquots (ALS code PGM-ICP23). See Gold by fire assay (alsglobal.com) and Platinum group elements (alsglobal.com) for more details the fire assay analysis being used by the Company on these samples. In addition to gold, PGM-ICP23 will also report platinum, palladium and silver. • Rare earth element (REE) analysis: In addition to lithium, analysis method ME-MS89L, which uses fusion decomposition for analysis (see the notes above), also analysis for a suite of rare earth elements including the light rare earth elements of Lanthanum, Cerium, Praseodymium, Neodymium and Samarium and the heavy rare earths elements Europium, Gadolinium, Terbium, Dysprosium, Holmium, Erbium, Thulium, Ytterbium, Lutetium and Yttrium. Analysis method ME-MS89L also analysis for, amongst other things, Niobium and Tantalum. The Company may also utilise lithium borate fusion with ICP-MS analysis ALS code ME-MS81h) should ore grade REE assays be returned from the initial ME-MS89L analysis (noting that ME-MS81h does not analyse for lithium given that lithium is the flux). • Base metal analysis: As noted above, sample analysis method ME-MS89L (which the Company uses to assay for lithium) uses fusion decomposition. ME-MS89L uses sodium peroxide as the oxidizing flux, which is also suggested method for base metal analysis given it enables full recovery of these metals from a given sample. As such, the Company will be analysing the samples referred to in this release for a range of base metals including, but limited to, Copper, Nickel, Lead, Zinc, Tin, Tungsten and Cobalt. The Company may also utilise four acid digestion method (ALS code ME-MS61) in addition to (or instead of ME-MS89L) during its exploration drilling programs when a lower detection limit or a different suite of trace-elements is required.
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).*	• The type of drilling used for this program was reverse circulation (RC) • The drilling contractor was Challenge Drilling, using a standard RC rod string and hammer.

Criteria	JORC Code explanation	Commentary
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.* • *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.*	• Sample recoveries were visually estimated. • The drill cyclone was cleaned between rod changes and at the end of each hole in the effort to minimise the risk of contamination. • There is no known relationship between sample recovery and grade or sample bias.
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.*	• All holes were logged geologically by Company geologists using Terrain Minerals' logging codes. • Logging is both qualitative and quantitative by nature, and often includes lithology, mineralogy, mineralisation, weathering and colour. • All drill holes were logged in full. • In relation to any disclosure of, or reference to, interpreted visual mineralisation, the Company cautions that visual estimates of mineral abundance should never be considered a proxy or substitute for laboratory analysis. Laboratory assay results are required to determine the widths and grade of the visual mineralization (if reported) in preliminary geological logging. The Company will update the market when laboratory analytical results become available.
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.*	• RC samples were collected direct from the cyclone on the drill rig. • Samples were mostly dry, with damp or wet intervals recorded. • Samples size was 2-3 kilograms. • Blank and Certified Reference Material (CRM, or 'standards') were inserted in the sample stream at the rate of 1:30

Criteria	JORC Code explanation	Commentary
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.*	• Samples are submitted to Company's preferred (and independently certified) laboratory in Perth, Western Australia where they will be dried (ALS code DRY-21), crushed (ALS code CRU-32) and pulverised (ALS code PUL-21) before being analysed using ME-MS89L (for lithium) and Au-AA24 (for gold). • Lithium analysis: Sodium peroxide fusion with ICP-MS (ALS code ME-MS89L) which, according to the laboratory, enables complete analysis of samples with resistant minerals. This fusion method of analysis is ideal when lithium is required [or for samples that contain a significant proportion of sulphides (> 4%)]. See Fusion decomposition (alsglobal.com) for more details on sodium peroxide fusion with ICP-MS analysis being used by the Company to analyse the samples referred to in this release. • Given the gold endowment of the Yalgoo-Singleton Greenstone Belt within which this drilling was undertaken, all drill samples are also being analysed for gold using fire assaying, which is considered the benchmark for gold analysis. • Gold analysis: Fire assay with ICP-AES finish of 30-gram samples aliquots (ALS code PGM-ICP23). See Gold by fire assay (alsglobal.com) and Platinum group elements (alsglobal.com) for more details the fire assay analysis being used by the Company on these samples. In addition to gold, PGM-ICP23 will also report platinum, palladium and silver. • Rare earth element (REE) analysis: In addition to lithium, analysis method ME-MS89L, which uses fusion decomposition for analysis (see the notes above), also analysis for a suite of rare earth elements including the light rare earth elements of Lanthanum, Cerium, Praseodymium, Neodymium and Samarium and the heavy rare earths elements Europium, Gadolinium, Terbium, Dysprosium, Holmium, Erbium, Thulium, Ytterbium, Lutetium and Yttrium. Analysis method ME-MS89L also analysis for, amongst other things, Niobium and Tantalum. The Company may also utilise lithium borate fusion with ICP-MS analysis ALS code ME-MS81h) should ore grade REE assays be returned from the initial ME-MS89L analysis (noting that ME-MS81h does not analyse for lithium given that lithium is the flux).

Criteria	JORC Code explanation	Commentary
		Base metal analysis: As noted above, sample analysis method ME-MS89L (which the Company uses to assay for lithium) uses fusion decomposition. ME-MS89L uses sodium peroxide as the oxidizing flux, which is also suggested method for base metal analysis given it enables full recovery of these metals from a given sample. As such, the Company will be analysing the samples referred to in this release for a range of base metals including, but limited to, Copper, Nickel, Lead, Zinc, Tin, Tungsten and Cobalt. The Company may also utilise four acid digestion method (ALS code ME-MS61) in addition to (or instead of ME-MS89L) during its exploration drilling programs when a lower detection limit or a different suite of trace-elements is required. • Consistent with standard industry practice, gallium assays (which are received from the laboratory as Ga element) are quoted as oxides within this report. The element to stoichiometric oxide conversion factor is 1.3442. See Advanced Analytical Centre - Element-to-stoichiometric oxide conversion factors - JCU Australia for more information on the conversion factor.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *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.*	• Sample intersections were checked by the geologist in charge. • No twinned holes. • Data entry onto log sheets then transferred into computer Excel files carried out by field personnel thus minimizing transcription of other errors. Careful field documentation procedures and rigorous database validation ensures that field and assay data are merged accurately. Assay reported as Excel files and secure PSF files. • Consistent with standard industry practice, gallium assays (which are received from the laboratory as Ga element) are quoted as oxides within this report. The element to stoichiometric oxide conversion factor is 1.3442. See Advanced Analytical Centre - Element-to-stoichiometric oxide conversion factors - JCU Australia for more information on the conversion factor.
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.*	• Drill collar locations were surveyed using handheld GPS, which is considered to be accurate to within +/- 5 metres. • Map coordinates are recorded in MGA Zone 50 GDA94

Criteria	JORC Code explanation	Commentary
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.*	• Drill spacing is suitable for reporting of exploration results. • Drill spacing is not suitable for Mineral Resource 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.*	• Drill planning was undertaken at an interpreted perpendicular angle to the targeted lithological unit. • Sampling is regarded to be unbiased with respect to the orientation of the lithologies.
Sample security	• *The measures taken to ensure sample security.*	• Samples are given individual sample numbers for tracking. • The sample chain of custody is overseen by the geologist in charge. • Samples are transported in sealed bags to the Company's preferred (and independently certified) laboratory in Perth, Western Australia
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• The sampling techniques and analytical data are monitored by the Company's geologists. • External audits of the data have not been completed.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

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.*	• The exploration results referenced in this release are from the Western Australian tenements of P 59/2125 and P 59/2126, located approximately 350 kilometres north of Perth. • These tenements are 100% held and operated by Terrain Minerals Limited. • There are no known material issues with third parties in relation to these tenements. • The tenements are in good standing with no known impediments to exploration.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Significant historic work has been completed over the tenements in question, including drilling, geophysical surveys and surface sampling. • Previous operators of the tenement areas include; Westfield Minerals (1965), Minefields Exploration (1970-1982), ANZECO (1970-1982), Golconda (1983), General Gold Resources NL (1991-1993), Renison Goldfields Consolidated (1993-1996), Normandy Exploration (1997-1999), Gindalbie Gold NL (1999-2006), Vital Metals Ltd (2005-2009), Minjar Gold Pty Ltd. (1999-2017), Hazelwood Resources Ltd. (2010-2015), and Tungsten Mining NL (2015-2017). • Terrain Minerals Limited has no reason to question the quality or results of the exploration activities undertaken by previous holders of these tenements.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The Smokebush Project covers a region in the Yalgoo-Singleton Greenstone Belt comprising supracrustal greenstone rocks, including mafic and felsic volcanic rocks, banded iron formation (BIF) and clastic sedimentary rocks. • Mineralisation style is Archaean orogenic gold type and potential lithium-caesium-tantalum (LCT) pegmatite-hosted lithium.
Drill hole 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:*	• See *Table 1* and *Table 2* within this report.

Criteria	JORC Code explanation	Commentary
	○ *easting and northing of the drill hole collar* ○ *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.*	• All reported assay for each metre has been averaged over an interval applying a 20 gram per tonne Gallium lower-cut and up to one metre in interval dilution, which is considered appropriate for this stage of exploration. • No metal equivalent values are used for reporting exploration results.
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').*	• The orientation / geometry of mineralization is unknown. • Drilled width is approximately true width
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.*	• The appropriate exploration maps have been included within the main body of this report.
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.*	• All drillhole results have been reported that contain Gallium assay results within the 20 gram per tonne Gallium lower-cut. • All holes (being 23SBRC001 to 23SBRC011) drilled as part of the Phase 1 drilling at Smokebush returned Gallium grades, as it appears that Earth's crust at least 5 grams per tonne of Gallium according

Criteria	JORC Code explanation	Commentary
		to the US Geological Survey (USGS) pp1802h.pdf (usgs.gov) • The full geological logs for the Phase 1 drilling at Smokebush are described in the Company's announced released via ASX MAP on 19 June 2023.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• All the relevant data has been included in this release. • The full geological logs for the Phase 1 drilling at Smokebush are described in the Company's announced released via ASX MAP on 19 June 2023.
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.*	• Subject to the (currently pending) assay results from the *Phase 2* drilling at Smokebush, further work may include further lithological as structural mapping, rock chip sampling, acquisition of high-resolution geophysical data and aerial drone imagery to assist geological interpretation and target generation. Further work may also include reverse circulation (RC) and/or diamond core drilling.