High Grade Tin and Indium Confirmed at Newly Granted Tamworth Project

HIGHLIGHTS

- **High-grade historical rock-chip results confirmed at the Giant's Den prospect within Terra's 100%-owned Tamworth Tin Project (EL9917), NSW**
- Significant historical results include:[1,2]
  - **2.9% Sn** (sample GD030)
  - **0.71% Sn and 106 g/t In** (sample GD031)
  - **0.54% Sn** (sample GD029)
  - **0.39% Sn** and **101 g/t In** (sample GD033)
- Mineralisation demonstrates a **tin-indium association** with potential exposure to two critical minerals
- **Indium tin oxide** is a transparent, electrically conductive material essential for anti-static coatings and electroluminescent applications for defence, flat-panel displays and touchscreens & solar panels
- Historical records indicate approximately **1,600 tonnes of tin production** from the Watsons Creek alluvial system, with extensive cemented tin-bearing terrace deposits remaining largely untested by modern exploration.
- Historical exploration by multiple **operators has identified hard-rock tin**, extensive alluvial mineralisation and multiple drill-ready targets across the project area.
- Review of historical datasets and development of a modern exploration strategy is underway

Terra Critical Minerals Limited (ASX:T92) (T92 or the Company) is pleased to announce the identification of high-grade historical tin and indium mineralisation at its recently granted 100%-owned Tamworth Tin Project in the highly prospective New England Tin Province of New South Wales. Historical exploration has returned rock-chip results of up to 2.9% Sn and 106 g/t In from the Giant's Den prospect, while the project area also encompasses the historically productive Watsons Creek alluvial tin field, which has recorded production of approximately 1,600 tonnes of tin.

The Company believes the combination of high-grade hard-rock mineralisation, significant indium values and extensive alluvial tin potential provides a strong foundation for systematic modern exploration across the project area.

Chairman Andrew Vigar commented *"The Tamworth Tin Project adds another highly prospective critical minerals asset to Terra's New England portfolio. The combination of high-grade hard-rock tin mineralisation, significant indium values and extensive historical alluvial production provides multiple avenues for exploration and potential development".*

[1] NSW DIGS Reference RE0001383

ABN 48 650 774 253
Suite 303, 365 Little Collins St Melbourne VIC 3000
admin@t92.com.au | t92.com.au

Background

Terra continues to build on its critical metal portfolio, with its focus in NSW being in the New England area, comprising the Ottery Tin Mine, Castle Rag Silver deposit, Mole River base metals project, and Glen Eden which is host to NSW's largest tungsten deposit.

The location of the recently granted EL 9917 is shown in the figure below

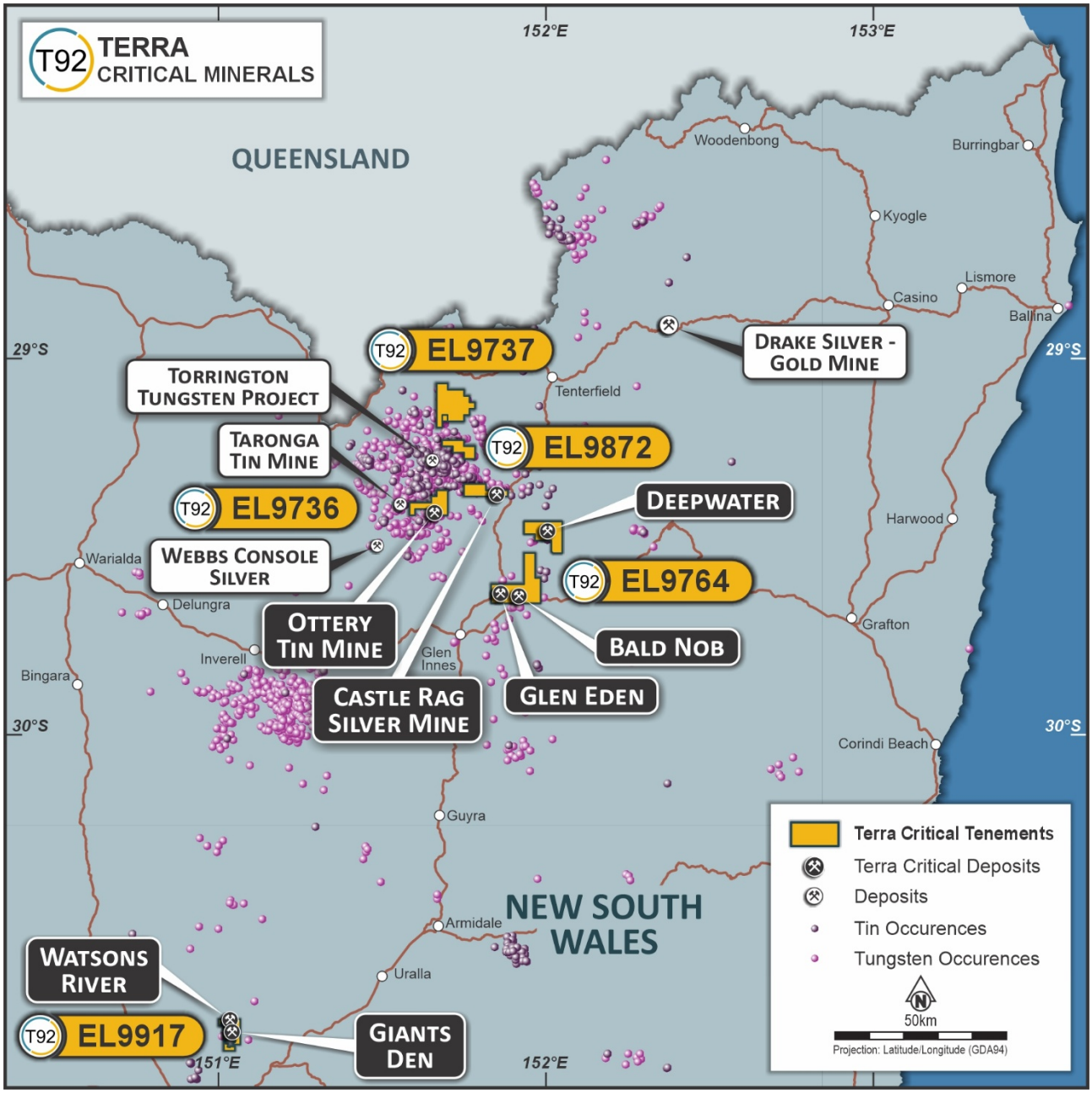

Figure 1. Location of T92 Project Areas and the recently granted EL

During a review of the Giants Den area for tin significant results from Rock Chip samples as collected by YTC Resources Pty Ltd in 2008-2009 and reported July 2009 (NSW DIGS Ref RE00037654) yielded significant tin assay results.

Past Work

Austminex EL46 (1967):
Exploration included soil sampling, minor rock chip sampling and geological mapping. The soil sampling was on a 200' (61m) grid and was for tin and copper only. The soil sampling was not effective at identifying the Giants Den greisen. Austminex sampling was the first to recognise the polymetallic nature of the mineralisation.

Harbourside Oil (1969):
This company completed costeaning and rock chip sampling over the southern workings and drilled the core hole DM1 to 228m. The hole recorded a number of minor lode intervals of >1%Sn.

No assays were completed for any elements other than tin, despite the presence of strong chalcopyrite mineralisation within the lodes.

NSW Department of Mineral Resources (DMR) (1979):
Geologists from the NSW DMR conducted detailed sampling of the costeans put in by Harbourside. This sampling was done prior to the costeans being rehabilitated by the DMR. Some of the original costeans had collapsed and were not accessible to the DMR geologists.

CSIRO (1980):
A brief study of the Giants Den greisen was undertaken in 1980 involving geochemical characterisation of the alteration present. Nineteen rock chip samples were collected and analysed for a variety of elements. "Geochemically the alteration is characterized by gains in As, Cu, Bi, Li, Rb, and Sn and losses in Na, K, Ba, Pb and Sr with the latter group reflecting the destruction of feldspars." Comparisons were made between the greisen alteration system and standard porphyry copper systems indicating that Giants Den is a large magmatic system capable of hosting low grade copper and tin mineralisation.

EL1536 &1739 Northumberland Development Company and Tefep Pty. Ltd.(1981): Northumberland began a systematic assessment of the Watsons Creek alluvial deposit using auger drilling and dozer cuts. In late 1981 Tefep Pty. Ltd. became operator of EL1536 and the adjacent EL1739. No further drill definition or bulk sampling of the leases occurred probably due to the collapse of the tin price at this time. Detailed 1:2500 scale mapping of Watsons Creek to it's confluence with the MacDonald River was undertaken. This work provides a number of drill ready alluvial targets.

A to P 4003 (1973 to 1976):
This prospecting licence later became ML224. Drill and dozer cuts were used to define an alluvial tin resource along Stone Dam Creek. No record of production from this resource has been located. An alluvial channel was recognised running off the lease to the east towards Watsons Creek.

Kuehn Honours Thesis (1985)
A BSc. Honours thesis by Philip Kuehn was recovered and digitized. Much of the lease area is covered by 1:12,500 scale mapping in this work. Four granite plutons were identified which in order of intrusion are Banalasta Granite, Glenclair Granite, Pringles Granite and Tilmunda Granite. Kuehn includes the Giants Den griesen in the Glenclair Adamellite and considers that no separate intrusion hosting the tin lodes is present. DPI regional mapping places the deposit in the Pringles Adamellite. "The Glenclair Granite is fractionated and displays vertical zonation of textural, mineralogical and chemical features. This fractionation concentrated tin bearing fluids in the roof of the Glenclair intrusion. Pressure quenching and hydrofracturing released these fluids and deposited them as a cassiterite bearing vein swarm at the present summit of Giants Den Mountain. A second fluid stage sericitised many of the veins." (Kuehn 1985)

Thirty-six whole rock samples were analysed by XRF. Geochemistry with petrography demonstrate all phases are peraluminous S-type granites. This work indicates that there is no involvement of the Late Permian Moonbi Suite Granites with the Giants Den mineralisation. The Giants Den Mountain mineralisation "resulted from

concentration of tin complexes in an apirical cupola of the Glenclair granite due to crystal fractionation. Subsequent hydrofracturing of the porpyhritic cap rock disrupted crystal melt and vapour equilibrium resulting in ore deposition and vein formation. Later tectonic deformation dilated the veins with sericite alteration." (Kuehn 1985)

EL4147 Manpic Pty. Ltd. (1991 to 1995):
This licence was acquired to explore for alluvial tin and gold along Watsons Creek at a time of depressed metal prices. It was realised that minor alluvial gold represents a potential by – product to tin production. Manpic suggest that a second minor source is shedding gold into the lower reaches of Watsons Creek. It was also realized that the quartz sand present in the alluvials is a valuable resource that could be extracted as a part of alluvial tin production.

EL6449 YTC Resources (2005 to 2010):
During the life of EL6649 exploration consisted of:

- A thorough data review encompassing work from historic mining; previous explorers; and academic studies.
- 1:10000 scale geologic mapping and rock chip sampling.
- Relogging and systematic sampling of diamond hole DM1 held at the Londonderry Borecore Library.
- Aircore drilling of 72 holes for 831m
- Channel sampling of pit walls and tailings dumps.

EL9400 Locksley Resources (2022 to 2024):
No field exploration was conducted during the reporting period at Watsons Creek EL9400. Only one geophysical review was completed which identified several targets across the licence area.

Significant Rock Chip Results

Results from 19 surface samples collected by YTC Resources Ltd[3] included highlights:

- **2.9% Sn (sample GD030)**
- **0.71% Sn and 106 g/t In (sample GD031)**
- **0.54% Sn (sample GD029)**
- **0.54% Sn and 101 g/t In (sample GD033)**

Giant's Den Sampling									
		metres	g/t	g/t	ppm	ppm	ppm	ppm	ppm
Sample	**MGA_E**	**MGA_N**	**Ag**	**In**	**Cu**	**W**	**Zn**	**Sn**	**Ga**
081022-1	311696	6595661	**2.0**	4.2	184	10	64	99	16.95
GD026	311628	6594771	0	0.5	64	10	87	2070	16.25
GD027	311643	6594860	0.9	8.8	50	10	104	1775	21.5
GD028	311608	6594094	0.6	3.9	17	10	95	1490	24.1
GD029	311572	6594890	1.8	8.8	33	20	141	5390	35.7
GD030	311572	6594890	8.7	2.5	225	10	136	29000	25
GD031	311500	6594671	2.2	106.0	51	50	62	7150	12.85
GD032	311527	6594626	0.6	17.4	48	60	57	2970	5.64
GD033	311513	6594593	0.5	101.0	39	310	86	3940	15.8
GD034	311638	6594692	0	2.9	10	130	100	505	42.1
GD035	311744	6595078	0	0.7	12	40	45	48	17.5
GD036	311676	6595006	6.1	1.3	823	0	464	1155	19.75
GD037	311676	6595006	14.6	0.3	1410	10	108	1495	19.25
GD038	311700	6594950	2.1	14.9	24	0	101	750	17.15
GD039	311700	6594950	1.3	11.3	324	0	60	779	18.65
GD040	311396	6594561	0	0.4	46	0	75	1705	20.5
GD041	311350	6594565	0.5	0.5	17	40	42	2020	16.7
GD042	311364	6594615	0.7	0.2	29	30	49	2140	20.7
GD043	311215	6594662	0.9	0.1	3	10	18	777	39.2

Table 1. Surface sample results as reported by YTC

Geology and Mineralisation

- **Geological Setting**

  The project area lies within the Cisuralian Giant's Den Leucosyenogranite, in contact with older Carboniferous sediments.

- **Regional Importance**

  The Giant's Den Leucosyenogranite is part of the Glenclair granite which in turn forms part of the Bundarra Plutonic Suite. This forms part of the much larger New England Batholith of which the Mole Granite and Gilgai

[3] Exploration Licence 6442 – Silent Grove YTC Resources Ltd (2008)

Granites are members. These are the principal tin granites in the New England district, historically hosting over 350 hard rock and alluvial tin operations, with additional occurrences of wolfram (tungsten), bismuth, silver, molybdenum, and topaz.

- **Historic Production**

  Within the licence boundary, a hard rock tin mine and alluvial occurrence are recorded

- **Mineralisation Styles**
  - **Tin:** Hydrothermal quartz–cassiterite–greisen lodes, structurally controlled along WNW–ESE trends within the Mole Granite.

Further Work Program

Further review of historical datasets is ongoing. This will include further literature review, LiDAR or open file geophysics review, remote sensing, with access approvals now underway.

A full exploration program will be developed following the thorough analysis of past work.

This announcement has been authorised by Andrew J Vigar, Chairman, on behalf of the Board of Directors.

Announcement Ends

Competent Person's Statement

Information in this report is based on current and historic Exploration Results compiled by Mr Andrew J Vigar who is a Fellow of the Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. Mr Vigar is an employee of Mining Associates and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity 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 Vigar consents to the inclusion in this release of the matters based on his information in the form and context in which it appears. The Historical Data presented here is an accurate representation of the available data and studies for the Project at this time.

Historical Exploration Results Reported Under JORC 2012

The Competent Person, Mr Andrew J Vigar, states that the data presented here is an accurate representation of the available data and studies for the Project at this time. The Exploration Results reported here are from historical data as stored in the NSW DIGS Database. The company's JORC Competent Person has conducted a review of the rock chip sampling on the Silent Grove Project undertaken in 2007. It is the opinion of the JORC Competent Person that the work as reported by previous owners was conducted in a manner compliant with the requirements of JORC Code 2012 and the company is able to report these results for the first time under Chapter 5 of the ASX Listing Rules and JORC Code 2012.

Forward Looking Statements

Statements in this release regarding the Terra Critical Minerals business or proposed business, which are not historical facts, are forward-looking statements that involve risks and uncertainties. These include Mineral Resource Estimates, commodity prices, capital and operating costs, changes in project parameters as plans continue to be evaluated, the continued availability of capital, general economic, market or business conditions, and statements that describe the future plans, objectives or goals of Terra Critical Minerals, including words to the effect that Terra Critical Minerals or its management expects a stated condition or result to occur. Forward-looking statements are necessarily based on estimates and assumptions that, while considered reasonable by Terra Critical Minerals, are inherently subject to significant technical, business, economic, competitive, political and social uncertainties and contingencies. Since forward-looking statements address future events and conditions, by their very nature, they involve inherent risks and uncertainties. Actual results in each case could differ materially from those currently anticipated in such statements. Investors are cautioned not to place undue reliance on forward-looking statements.

References to Previous Announcements

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements, and that all material assumptions and technical parameters have not materially changed. The Company also confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (e.g. 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.*	• Rock Chip samples as reported were collected by YTC Resources Pty Ltd in 2008-9 and reported July 2009 (NSW DIGS Ref RE0001383). Samples are 1 to 3kg surface grab samples.
Drilling techniques	• *Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. 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).*	• No drilling undertaken
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.*	No drilling undertaken
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.*	No drilling undertaken
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.*	No drilling undertaken

Criteria	JORC Code explanation	Commentary
	• *Whether sample sizes are appropriate to the grain size of the material being sampled.*	
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 (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	• Rock outcrop/float samples from YTC Resources Pty Ltd in 2009 were assayed for Ag, As, Bi, Cu, Fe, Ga, Hf, In, Mo, Nb, Pb, S, Sn, Ta, W and Zn by ALS Orange using methods Au-AA25 (Fire Assay Au) ME-ICP61s (4 acid digest) and OG62 (ore grade 4 acid digest for base metals if in %). • Results are total rock assay. • Standards and blanks are as per lab standards
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.*	• Data has been recovered from Annual Reports, including original laboratory assay sheets, as reported to the NSW Govt. • Results are comparable with previous surface sampling • No drilling undertaken
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.*	• Surface sampling 2009 were surveyed using GPS in GDA94 – zone 56.
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.*	• Data spacing is variable due to the early stage of exploration. • No drilling undertaken
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.*	• Samples are surface rock outcrop/grab samples • The initial interpretation of the mineralisation at Giant's Den is a set of sheeted veins, contact greisen and alluvial tin
Sample security	• *The measures taken to ensure sample security.*	• Samples transported in sealed and labelled bags to laboratory.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• The original samples are not available

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.*	• Terra Critical Minerals Limited has a 100% ownership of LCT Metals Pty Ltd which holds 100% of EL9917. • All claims are current and in good standing and all necessary permits for the current level of operations have been received.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Exploration over the area as reported here was undertaken by private company YTC Resources Pty Ltd for the 12 month period to 14/07/2010 under EL 6449 and reported to the NSW Government as Annual report EL6449 July 2008 NSW DIGS Reference RE0001383
Geology	• *Deposit type, geological setting and style of mineralisation.*	• No drilling undertaken

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:*
	  ○ *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.*
		• No drilling undertaken

Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. 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.*	• Exploration results have been reported uncapped. • Cut-off grade used for reporting of samples is 15 g/t Ag or 0.1%Pb or 0.4% Sn or 0.02% Zn or 0.3% Cu or 0.1 g/t Au or 400 ppm Bi
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 (e.g. 'down hole length, true width not known').*	• Data spacing is variable due to the early stage of exploration. • No drilling undertaken

Criteria	JORC Code explanation	Commentary
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 layout map of the lease is included in the body of this release.
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 samples are reported.
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.*	• Exploration over the area has been extensive by many parties over the last 60 years. Review of the extent of this exploration is underway •
Further work	• *The nature and scale of planned further work (e.g. 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.*	• A full exploration program will be developed following the thorough analysis of past work. • Focus will be on in-fill drilling to better define mineable higher grade zones, and at depth for extensions. • This program is expected to take 2 years