TODD RIVER RESOURCES

**ASX Announcement**
21 June 2021

# Pingandy Base Metal Project Update

***Recently granted exploration licence and newly applied for tenure secures base metal prospective project in the Edmund Basin, Western Australia***

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**Key Points:**

- **100% ownership of large landholding of 895 square kilometres with existing base metal anomalism in the Edmund Basin;**
- **Covers the projected down dip extensions of the Blue Billy Formation, previously identified as a potential host for Sedex style base metal mineralisation**
- **Exploration to commence in September 2021 quarter with surface geochemical sampling designed to identify areas for follow up drilling and geophysics;**

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Todd River Resources Limited **(ASX: TRT) (Todd River** or the **Company)** is pleased to provide the following update on recently granted tenement E08/3161, a significant part of a broader package of tenement applications which together form the **Pingandy Base Metal Project** (the **Project**) in Western Australia (Figure 1).

The Company originally acquired tenement application E08/3161 through the acquisition of Marlee Base Metals Pty Ltd in September 2020. Subsequent desk top geological studies have identified further opportunities south and east of the original tenement, resulting in the pegging of additional Exploration Licence applications E52/3959, E52/3960 and E08/3363.

**Geological Rationale**

Previous exploration for Sedex-style mineralisation has focused on the outcrop and subcrop of the Blue Billy Formation (formerly known as the Jillawarra Formation), which consists of laminated pyritic carbonaceous shale and ranges in thickness up to 500 metres. Figure 2 shows the project scale geology, prospective horizon and down-dip extrapolation of this horizon.

This geological package also hosts the Abra lead-silver deposit to the south of the Pingandy Project. Currently the Abra mineral resource is 34.5Mt@7.2% Pb and 16 g/t Ag (source: Galena Mining, ASX:G1A). The style of mineralisation found at Abra is unusual and well documented and not necessarily the style that will be targeted by the exploration programs to be undertaken at Pingandy, however it is a significant indicator of prospectivity from a basin endowment, mineralising process and fluid flow perspective.

Previous exploration by various companies has been limited to areas where the Blue Billy Formation is exposed at surface and immediately down-dip of this. Multi-element anomalism in historic geochemical sampling supports the potential for Sedex forming processes having occurred, including:

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- Broad zones (5-50 metres) of zinc (Zn) mineralisation (0.1-1.2%) in previous drilling associated with a suite of multi-elements
- Elevated silver (Ag), lead (Pb), arsenic (As), cadmium (Cd), antimony (Sb) and thallium (Tl) – with thallium in particular being an important pathfinder for Sedex mineralisation
- Elevated copper (Cu), nickel (Ni), uranium (U), vanadium (V) and molybdenum (Mo) – unusually high compared to typical Australian Sedex deposits but similar to other Sedex districts such as the Selwyn Basin in Canada
- A manganese (Mn) halo associated with zinc mineralisation – a manganese carbonate alteration halo is typical for Sedex mineralisation

The source of the hydrothermal fluids responsible for these elevated element suites is interpreted to be the Perry Fault, a basin scale structure easily identifiable in magnetics that extends for over 200 kilometres. Significant Sedex deposits such as McArthur River and Century are directly adjacent to major structures similar to the Perry Fault. Importantly, in the case of the Pingandy Project, previous drilling has not tested the Perry Fault where it intersects the down-dip extension of the Blue Billy Formation.

Geophysical methods commonly used for other deposit styles and base metals and such as magnetics, gravity and EM are less effective for direct targeting of Sedex mineralisation. Therefore, rigorous geochemical/alteration vectoring and structural interpretation is required to define targets for drill testing. We believe that previous work did not successfully utilise these methods for exploration.

**Exploration Work Program**

The Company plans to commence exploration activities early in the September 2021 quarter with a widespread geochemical sampling program to identify areas of base metal anomalism across the Blue Billy Formation and the interpreted down dip extensions. Should it be justified, follow up work from this point will potentially include both stratigraphic and targeted drilling.

**Release authorised by:**
**The Board of Todd River Resources**

**Enquiries:** Will Dix + 61 (0) 8 6166 0255

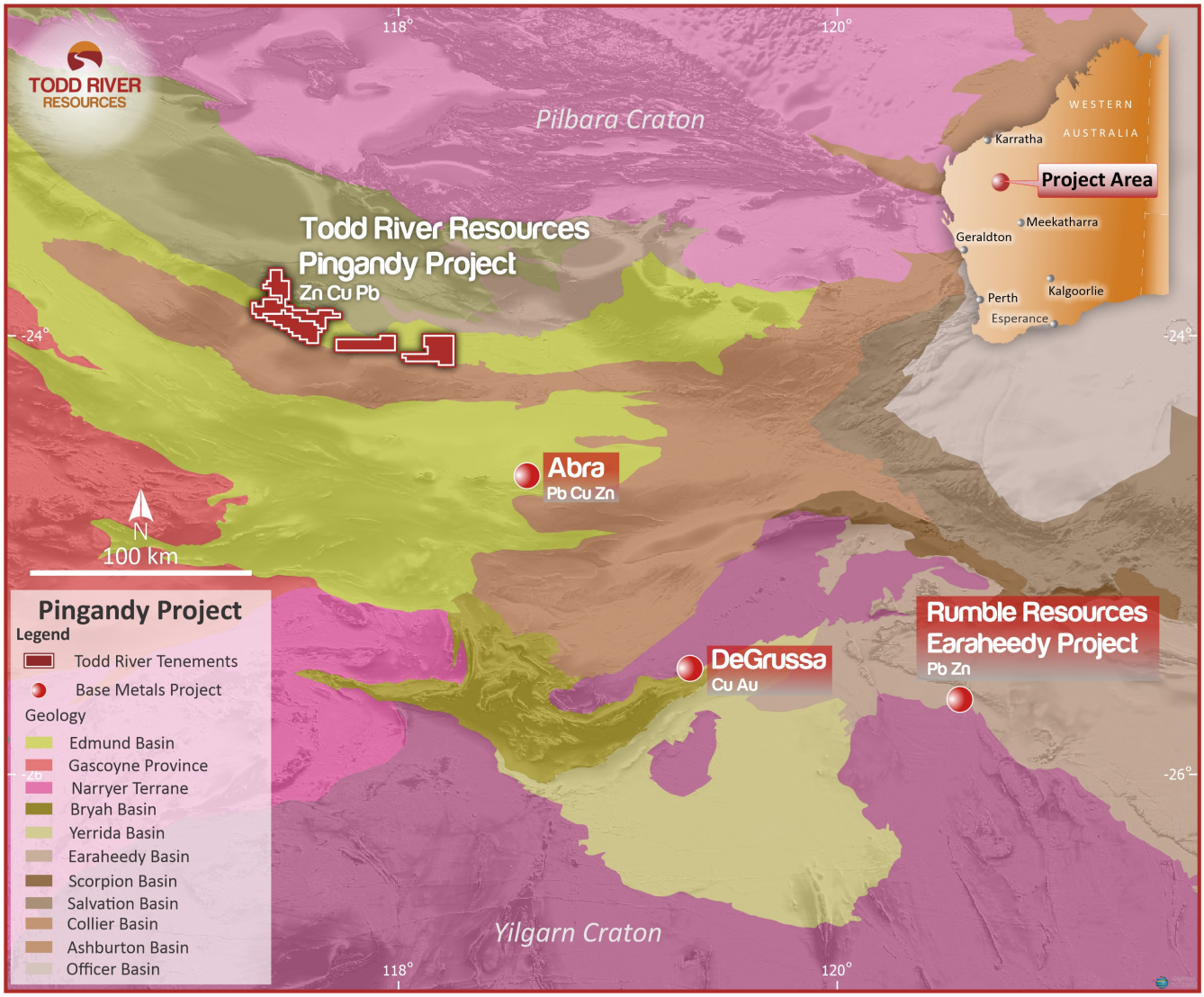


**Figure 1 – Pingandy Base Metal Project Location Map**

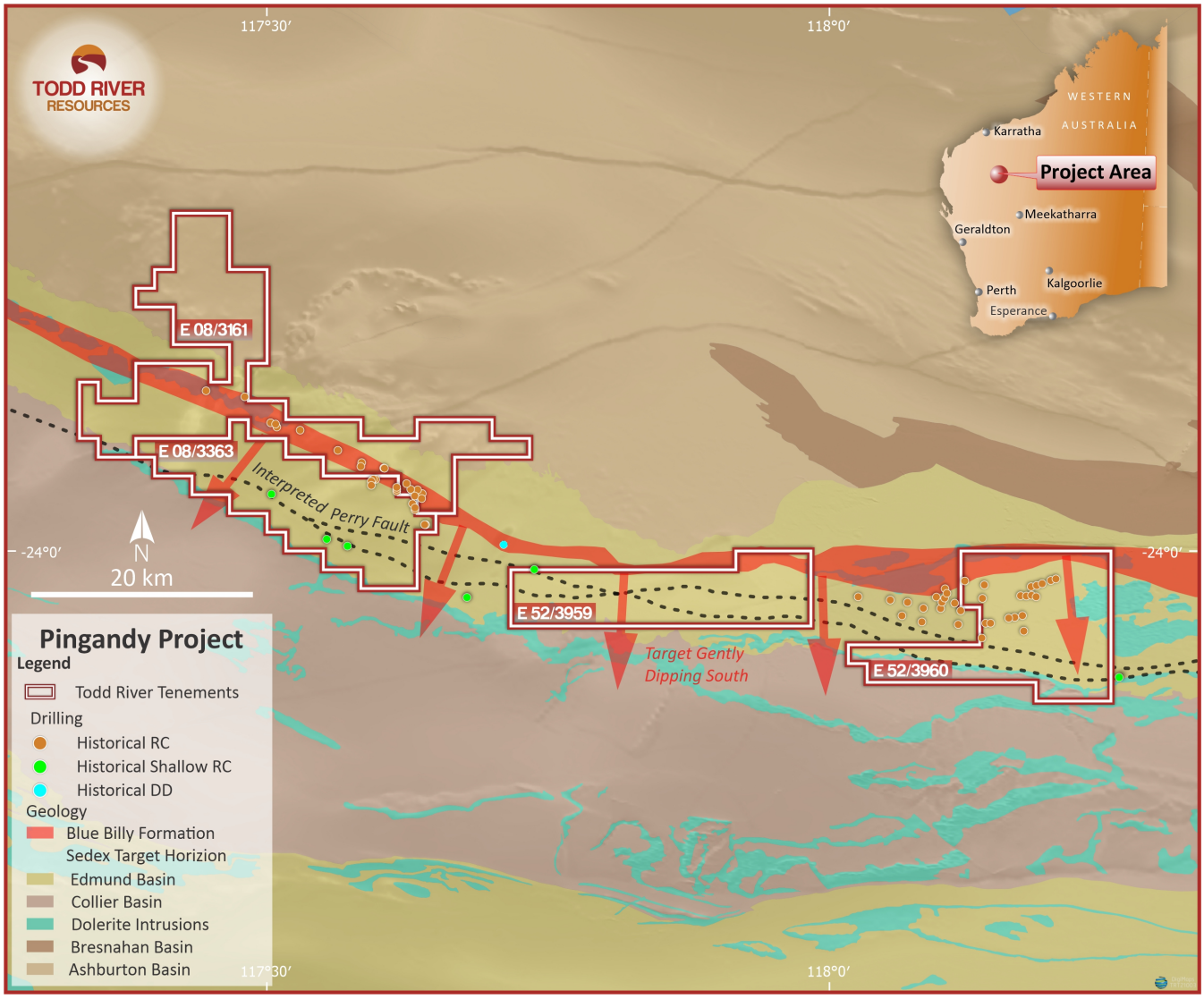


**Figure 2 – Pingandy Base Metal Project – Geology Highlighting the Prospective Blue Billy Formation and Down Dip Extension Under Younger Cover.**

**About Todd River Resources**

Todd River Resources (ASX: TRT) is an Australian-based resources company that has base and precious metal projects in Western Australia and the Northern Territory.

Having an experienced management team and strong funding position, Todd River is well placed to pursue base and precious metal opportunities across its extensive exploration portfolio that includes the Berkshire Valley and Petermann Range Projects.

The Company also has resources at both its Mt Hardy and Manbarrum Projects and a number of exciting early stage nickel-copper-PGE exploration projects in Western Australia.

**Forward Looking Statements**

This announcement includes forward-looking statements. These statements relate to the Company's expectations, beliefs, intentions or strategies regarding the future. These statements can be identified by the use of words like “will”, "progress", “anticipate”, “intend”, “expect”, “may”, “seek”, “towards”, “enable” and similar words or expressions containing same.

The forward-looking statements reflect the Company’s views and assumptions with respect to future events as of the date of this announcement and are subject to a variety of unpredictable risks, uncertainties, and other unknowns. Actual and future results and trends could differ materially from those set forth in such statements due to various factors, many of which are beyond our ability to control or predict. Given these uncertainties, no one should place undue reliance on any forward looking statements attributable to the Company, or any of its affiliates or persons acting on its behalf. The Company does not undertake any obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. Neither the Company nor any other person, gives any representation, warranty, assurance, nor will guarantee that the occurrence of the events expressed or implied in any forward-looking statement will actually occur. To the maximum extent permitted by law, the Company and each of its advisors, affiliates, related bodies corporate, directors, officers, partners, employees and agents disclaim any responsibility for the accuracy or completeness of any forward-looking statements whether as a result of new information, future events or results or otherwise.

**Competent Person Statement**

The information in this report that relates to Exploration Results is based on information compiled by William Dix, who is a full time employee of Todd River Resources. Mr Dix is a member of the Australian Institute of Mining and Metallurgy. Mr Dix has sufficient experience of relevance to the style of mineralization and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Dix consents to the inclusion in this report of the matters based on information in the form and context in which it appears.

The following Tables are provided to ensure compliance with the JORC code (2012) edition requirements for the reporting of exploration results.

## Appendix C - JORC Table One – Compilation of historical 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.<br>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.<br>Aspects of the determination of mineralisation that are Material to the Public Report. | Work completed by Encounter Resources Ltd WAMEX file records A076063, A080536, A08265, A088056, A073968, A077020, A080151, A085056, A088052<br><br>RC samples were collected with a scoop. Initially 4m composites were collected and anomalous samples later re sampled as individual 1m samples |
| 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). | Work completed by Encounter Resources Ltd WAMEX file records A076063, A080536, A08265, A088056, A073968, A077020, A080151, A085056, A088052<br><br>RC drilling – no details are available regarding the size of the bit used |
| Drill sample recovery | Method of recording and assessing core and chip sample recoveries and results assessed.<br>Measures taken to maximise sample recovery and ensure representative nature of the samples.<br>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. | Work completed by Encounter Resources Ltd WAMEX file records A076063, A080536, A08265, A088056, A073968, A077020, A080151, A085056, A088052<br><br>No comments are made about drilling recoveries |
| 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.<br>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.<br>The total length and percentage of the relevant intersections logged. | Work completed by Encounter Resources Ltd WAMEX file records A076063, A080536, A08265, A088056, A073968, A077020, A080151, A085056, A088052<br><br>All holes were logged for lithology by Encounter Resources geologists and recoded digitally. Logging is all available in the WAMEX data |
| Sub-sampling techniques and sample preparation | If core, whether cut or sawn and whether quarter, half or all core taken.<br>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.<br>For all sample types, the nature, quality and appropriateness of the sample preparation technique.<br>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.<br>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. | Work completed by Encounter Resources Ltd WAMEX file records A076063, A080536, A08265, A088056, A073968, A077020, A080151, A085056, A088052<br><br>RC samples were collected with a scoop. Initially 4m composites were collected and anomalous samples later re sampled as individual 1m samples |

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| | 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.<br>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.<br>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. | Work completed by Encounter Resources Ltd WAMEX file records A076063, A080536, A08265, A088056, A073968, A077020, A080151, A085056, A088052<br><br>RC drill samples were routinely sent to an unknown lab in Perth for four acid with ICP-OES, near total digestion with ICP-MS, and aqua regia with ICP-MS for Zn, Cu, Pb, Au and numerous other elements |
| Verification of sampling and assaying | The verification of significant intersections by either independent or alternative company personnel.<br>The use of twinned holes.<br>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.<br>Discuss any adjustment to assay data. | No information available |
| Locations 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.<br>Specification of the grid system used.<br>Quality and adequacy of topographic control. | Work completed by Encounter Resources Ltd WAMEX file records A076063, A080536, A08265, A088056, A073968, A077020, A080151, A085056, A088052<br><br>All drillholes have accompanying collar and survey files and were located with GPS – the project falls in projection zone 50 |
| Data spacing and distribution | Data spacing for reporting of Exploration Results.<br>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.<br>Whether sample compositing has been applied. | Not Relevant |
| 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.<br>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. | No information available |
| Sample security | The measures taken to ensure sample security. | No Information available |
| Audits or reviews | The results of any audits or reviews of sampling techniques and data. | No sampling audits have been conducted |

## 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, | The Pingandy Project is located on tenements E 08/3161 (Moore River Metals Pty Ltd) which is recently granted, and E 08/3363, E 52/3959 and E |

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| | native title interests, historical sites, wilderness or national park and environmental settings.<br>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. | 52/3960 (Moore River Metals Pty Ltd) which are in application. They over previous tenements held by Encounter Resources Ltd which is where the historic work was carried out.<br><br>All tenements are in good standing and are not subject to any joint ventures |
| Exploration done by other parties | Acknowledgment and appraisal of exploration by other parties. | All significant previous work is outlined in WAMEX open file reports.<br><br>TRT has accessed and reviewed all of this work and compiled our own database on the project from the available open file data. The WAMEX reports used for the purpose of this work include:<br><br>A076063, A080536, A08265, A088056, A073968, A077020, A080151, A085056, A088052<br><br>All of these reports are compiled Encounter Resources Ltd and contain comprehensive written descriptions of their work and associated .txt files of all drilling and sampling completed.<br><br>The documents appear correct and the geo-spatial data recorded matches with images produced when verified independently |
| Geology | Deposit type, geological setting and style of mineralisation. | Not relevant |
| 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:<br>○ Easting and northing of the drill collar<br>○ Elevation of RL (Reduced Level – elevation above sea level in metres) of the drill collar<br>○ Dip and azimuth of the hole<br>○ Down hole length and interception depth<br>○ Hole length | Historic drilling only reported<br><br>Work completed by Encounter Resources Ltd WAMEX file records A076063, A080536, A08265, A088056, A073968, A077020, A080151, A085056, A088052 |
| 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.<br>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.<br>The assumptions used for any reporting of metal equivalent values should be clearly stated. | From reading the open file reports, no aggregation or averaging was conducted on the data reported here. |
| Relationship between mineralisation widths and intercept lengths | These relationships are particularly important in the reporting of Exploration Results.<br>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.<br>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'). | Not Relevant |

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| 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. | Historic hole locations shown on Figure 2 |
| 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. | Historic Reporting only |
| 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. | No substantial new information is available other than that reported above. |
| Further work | The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).<br>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. | Additional geochemical sampling followed by drilling should it be warranted will be completed over the project |