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ASX: TOK, OTCQX: TOLUF

ASX, OTCQX Announcement

3 April 2025

## Mt Penck Exploration Update

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### HIGHLIGHTS:

- Airborne MT results from the Mt. Penck Project have caused Tolu to re rate the exploration prospectivity of the Mt. Penck Project.
  - Eight new material porphyry copper-gold targets have been identified as a result of the new MT imaging.
  - Tolu has applied for a new and strategic exploration tenement immediately adjacent to the Mt Penck Project priming Tolu to triple its exploration footprint in this key area.
  - The Mt Penck Project system is now assessed to be part of a larger district of porphyry gold-copper targets.
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**Iain Macpherson, MD & CEO of Tolu Minerals Ltd ("Tolu") said:**

*"It is pleasing that the final results from the Mt. Penck Airborne MT survey reveal numerous porphyry style targets in addition to the existing Mt. Penck gold-copper system.*

*Existing epithermal gold mineralisation, explored since the 1960s, occurs within the upper levels of a porphyry core that will require follow-up drilling.*

*Anomalous gold in historical stream and rock samples outside the known Mt. Penck system of gold veins, demonstrate a much larger footprint of mineralisation associated with an outer Airborne MT conductivity alteration halo.*

*The results from the newly flown advanced Airborne MT geophysical technology have now significantly re-rated the Mt. Penck Project with eight interpreted material target areas.*

*Based on our interpretation of the Airborne MT and historical results, Tolu has also applied for an additional Exploration License of some 201.8km<sup>2</sup> to the South and West of our existing Mt. Penck tenement.*

*Tolu is now reprioritising the targets within the expanded landholding that can be characterised as a large district of under-explored and potentially “blind” porphyry and intrusive style mineral target areas all warranting further exploration and drilling.”*

### **Airborne MT Process**

Tolu is pleased to announce the results from its Airborne Magneto Telluric (“**Airborne MT**” or “**MT**”) survey at its Mount Penck tenement (EL2662) on New Britain Island (*Figure 1*) covering 102.60km<sup>2</sup> of highly prospective gold and copper-gold mineralisation.

Airborne MT is an advanced geophysical technology providing high-resolution, deep resistivity/conductivity 3D mapping to about 1.5km depth. The purpose of the survey was to map bedrock structure and lithology, including possible alteration and mineralisation zones, observe apparent conductivity corresponding to different frequencies, invert electromagnetic (“**EM**”) data to obtain the distribution of resistivity with depth, execute lineament analysis of the inverted data in 3D and using magnetic imagery to help define intrusive bodies which may be related to gold and copper mineralisation.

Final processed and modelled data have been received by Expert Geophysics that includes:

- Apparent conductivities;
- Inverted resistivity models;
- 3D lineament analysis;
- Very Low Frequency EM (“VLF EM”); and
- Magnetic images.

### **Location**

The Mt. Penck Project on New Britain Island is accessible by road approximately 55 kilometers from the existing deep-water port at the provincial capital of Kimbe and circa 85 kilometers from Hoskins airport with simple and reliable road access to the Project site that will benefit any future development of the Project. The main prospects occur within a well-defined narrow NW-trending corridor flanked by prominent lineaments which define the Kulu-Simi Trend, a possible Transfer Structure (*Figure 1*).

### **New Exploration Tenement Application**

Based on our interpretation of the Airborne MT and historical results, Tolu has applied for an additional Exploration License of some 201.8km<sup>2</sup> immediately adjacent to and South and West of our existing Mt. Penck tenement (ELA2866). If granted, this would effectively triple Tolu’s exploration footprint in this key area. (*Figure 1*)

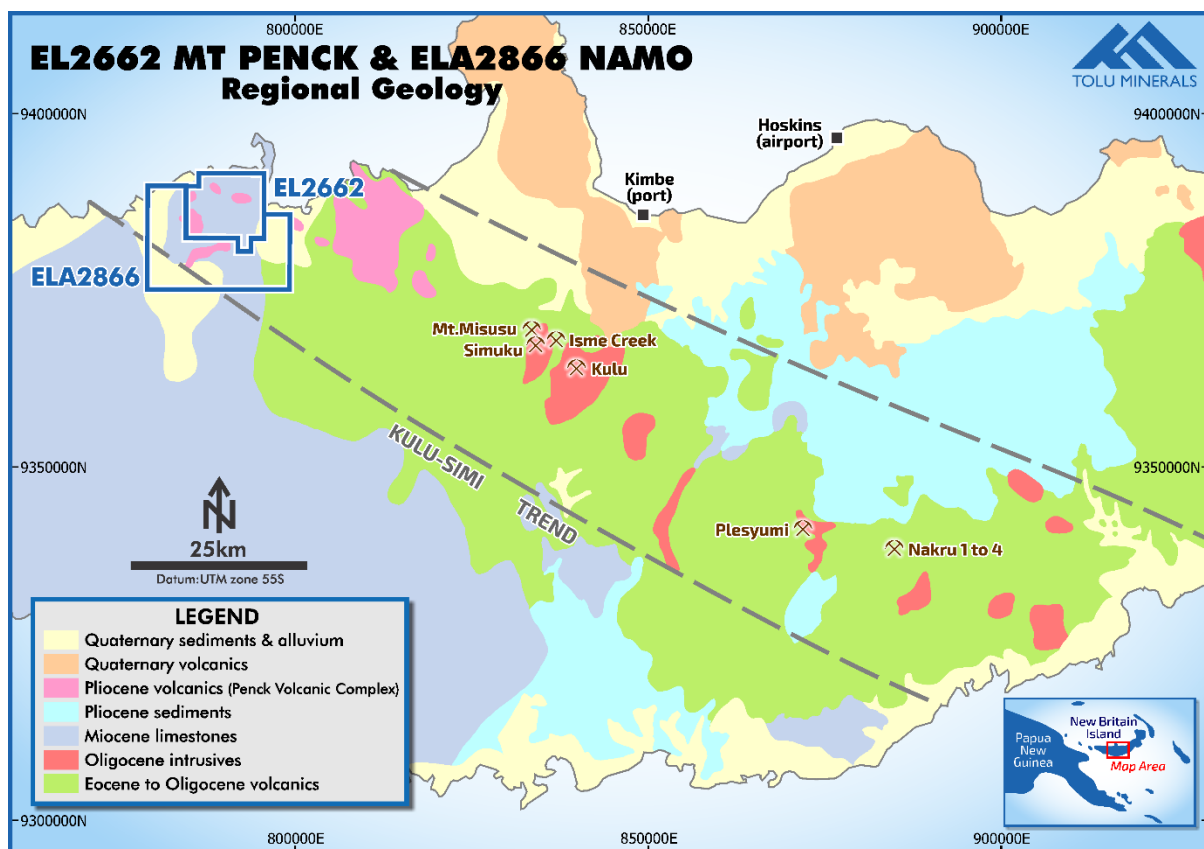


Figure 1: Location and Structural Setting of the Mt Penck Project

## Historical Results

As part of the Mt Penck system of mineralisation, gold, copper, lead and zinc intersections have previously been identified from numerous gold veins, and feeder zones at Koibua, Koibua South, Peni Creek, Peni Creek South, Kavola and Kavola East<sup>1</sup>.

The Kavola West prospect, within the Mt Penck Core Target area, occurs as polymetallic feeder zones with drill hole intersections including<sup>2</sup>:

2m at 2.05 g/t Au + 43 g/t Ag + >1% Pb + 7.4% Zn from 27m including:

1m at 2.36 g/t Au + 65.1g/t Ag + >1% Pb + 12.2% Zn from 28m

6m at 9.08 g/t Au + 54 g/t Ag + 0.28% Cu + 0.21% Pb + 0.82% Zn from 88m including:

2m at 19.05g/t Au + 131g/t Ag + 0.69% Cu + 0.46% Pb + 1.8% Zn from 91m

Polymetallic zones identified at Kavola, Kavola East and Kavola West are targets identified for further drilling.

<sup>1</sup> Refer to Market Release: Mt Penck Project Trench and Rock Sampling Confirms Numerous Gold Mineralised Trends with Several exceeding 5g/t Gold including a Return of 1m @ 18.2g/t Gold, dated 29 January 2024 available at: [Investor Centre | Tolu Minerals](#)

<sup>2</sup> Refer to Market Release: Mt Penck High Grade Gold and Polymetallic Feeder Zones and Exploration Targets, dated 29 April 2024 available at: [Investor Centre | Tolu Minerals](#)

## Mount Penck Project Exploration Target

Tolu has also developed an Exploration Target<sup>3</sup> of 240,000 to 400,000 oz Au grading 2.1 to 3.1 g/t Au (refer to *Table 1*), solely within the argillic alteration zone (*Figure 2*), based on the estimated:

- tonnes and grades from surface trench and drill results of Kavola, Kavola East, Kavola SE and Kavola West with averaging significant intersections (*Table 2*) of 4.15 g/t Au
- the number of veins intersected at Kavola, Kavola East, Kavola SE and Kavola West
- gold grades and widths from trenching and drilling at the Koibua prospect
- the number of veins intersected from surface trenching, trench and drilling grades at the Peni Creek prospect

Airborne MT results indicate that this mineralised zone occurs within a cluster of numerous other newly defined, but underexplored porphyry and intrusive related targets.

*Table 1: Mt. Penck Exploration Target*

Mt Penck Project Gold Exploration Target – April 2024						
Project	Deposit	Rank	Low (tonnes)	High (tonnes)	Low (Au)	High (Au)
Mt Penck	Kavola East Kavola SE Kavola Kavola West Peni Creek Koibua	High	3,400,000	4,000,000	2.2 g/t	3.1 g/t
<b>Totals</b>			3,400,000	4,000,000	2.1 g/t	3.1 g/t

*Cautionary Statement: The Exploration Target for the Mt Penck Project, describing the potential quantity and grade, is conceptual in nature. There has been insufficient exploration completed to estimate a Mineral Resource for all target areas reported and it is uncertain if further exploration will result in the estimation of further Mineral Resources.*

<sup>3</sup> Refer to Market Release: Mt Penck High Grade Gold and Polymetallic Feeder Zones and Exploration Targets, dated 29 April 2024 available at: [Investor Centre | Tolu Minerals](https://www.toluminerals.com/investor-centre)

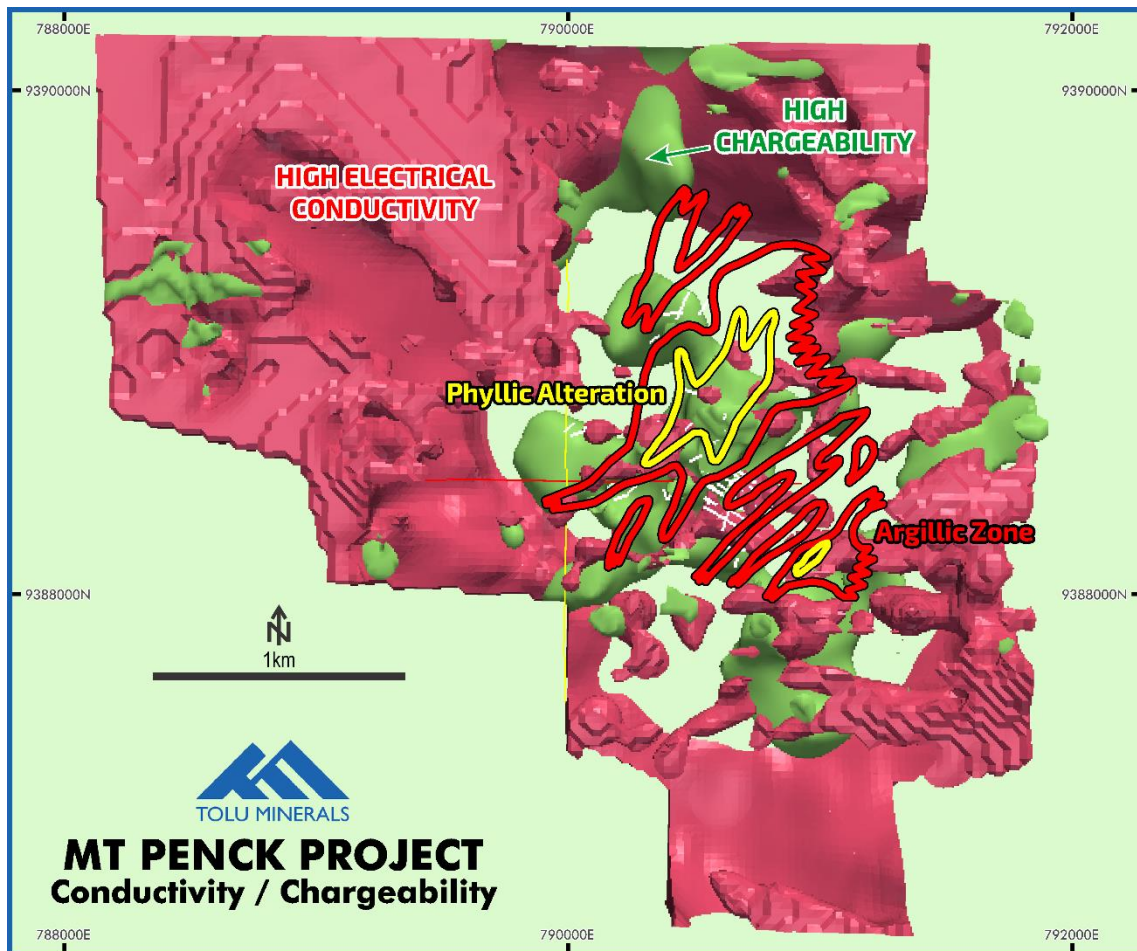


Figure 2: Historical 3D IP Conductivity (red) and Chargeability (green) with Alteration

### Airborne MT Geophysical Survey Targets

Tolu have identified eight porphyry and intrusive style geophysical signatures from its recently flown Airborne MT survey (Figure 3 and Table 1):

#### 1. Mt Penck Porphyry

- a) Mt Penck Core – Complex epithermal system that exhibits overlapping low to intermediate sulphidation gold-silver and high sulphidation gold-copper mineralisation hosted in volcanics and porphyry intrusions<sup>4</sup>. A total of 115 historical drillholes, comprising 82 diamond holes (11,038.6m) and 33 rotary Aircore holes (1,140m) have been completed with sporadic low-tonnage high grade zones such as at Kavola East, where drillhole MPD007 intersected 2m @ 36.70g/t Au from 68m<sup>5</sup>.

<sup>4</sup> Refer to Market Release: Mt Penck Project Trench and Rock Sampling Confirms Numerous Gold Mineralised Trends with Several exceeding 5g/t Gold including a Return of 1m @ 18.2g/t Gold, dated 29 January 2024 available at: [Investor Centre | Tolu Minerals](#)

<sup>5</sup> Refer to Market Release: Mt Penck High Grade Gold and Polymetallic Feeder Zones and Exploration Targets, dated 29 April 2024 available at: [Investor Centre | Tolu Minerals](#)



- b) Mt Penck Core – Polymetallic minerals have been intersected near surface (<200m) from drilling and trench intersections at Kavola West and Kavola Copper<sup>1</sup> prospects. There exists potential for large-tonnage source of high sulphide content epithermal disseminated sulphides related to gold, copper, lead and zinc mineralisation. This target area is an interpreted 800m diameter 'telescoped' porphyry (*Figure 6*) associated with a high resistivity anomaly from the Airborne MT and a strong magnetic low.
  - c) Mt Penck North – Target is coincident with a 1km intrusive related core of high resistivity from the Airborne MT and strong magnetic low (*Figure 4*). Gold anomalous rock chip samples along its margin include 3.84 and 2.64g/t Au in Target 2 RC (*Figure 7* and *Table 2*).
  - d) Mt Penck Halo - An outer 4.5km diameter halo related to high conductivity halo, likely related to alteration. Anomalous gold in stream sediment (Target 8 SS) and panned concentrate (Target 4 PC), and 10.2g/t Au in a rock chip sample (Target 3 RC) occur along its western margin that require follow-up sampling (*Figure 7* and *Table 3*).
2. Silavuti Intrusive – Occurring on the south-eastern rim of the Mt Penck halo, this target occurs as a high resistivity Airborne MT anomaly at its centre with an associated with a non-magnetic core. It is surrounded by a an 800m diameter high conductivity and magnetic halo (*Figure 5*). One stream sediment (Target 7 SS) and two panned concentrate (Target 5 and 9 PC) gold anomalies drain from this high priority area that require follow-up sampling (*Figure 7* and *Table 3*).
  3. Silavuti West – Occurring on the SSE rim of the Mt Penck conductivity halo, this target occurs as a telescoped high resistivity Airborne MT anomaly, as evident from the Airborne MT lineament Analysis results. It is interpreted as a satellite intrusive related target.
  4. Tamari Porphyry – A 1.2km diameter high resistivity and low magnetic core with a 300m wide high conductivity halo interpreted as an alteration halo. Two Panned Concentrate (Target 10 and 11 PC) and one stream sediment sample (Target 6 SS) drain from this Target area (*Figure 7* and *Table 3*).
  5. Namo Porphyry
    - a) Namu Porphyry – A large 2.4 km diameter Airborne MT high resistivity halo surrounding a central high conductivity core. An outer large 5.5km diameter conductivity halo is associated with a topographic low halo (*Figure 7*), potentially caused by erosion related to an alteration zone. Outcrop surface sampling of its topographically raised core is recommended.
    - b) Namu Intrusive – Occurs within the northern margins of the Namu Porphyry. Airborne MT Lineament Analysis shows this target as a distinct 1.7km circular intrusive with a high resistivity core related to a high topographic centre (*Figure 7*) and outer conductivity halo.
  6. Namu South Porphyry – A 1.6km diameter strong Airborne MT conductivity anomaly at 300m depth, extending to over 1km depth. With a 2.8km high resistivity halo, this target

is interpreted as a blind intrusive or porphyry extending further south of the Airborne MT survey block. It occurs within ELA2866 and an immediate drill target.

7. Namo 2 – A strong 800m wide conductivity anomaly within ELA2866, extending over the southern edge of the Airborne MT survey block. The anomaly is 100m deep and extends to over 1km depth, representing an intrusive style target.
8. Namo 3 – A strong 800m wide conductivity anomaly within ELA2866, on the southern edge of the Airborne MT survey block. It occurs at 200m depth, extending to over 1km depth, representing a ‘blind’ intrusive style target.

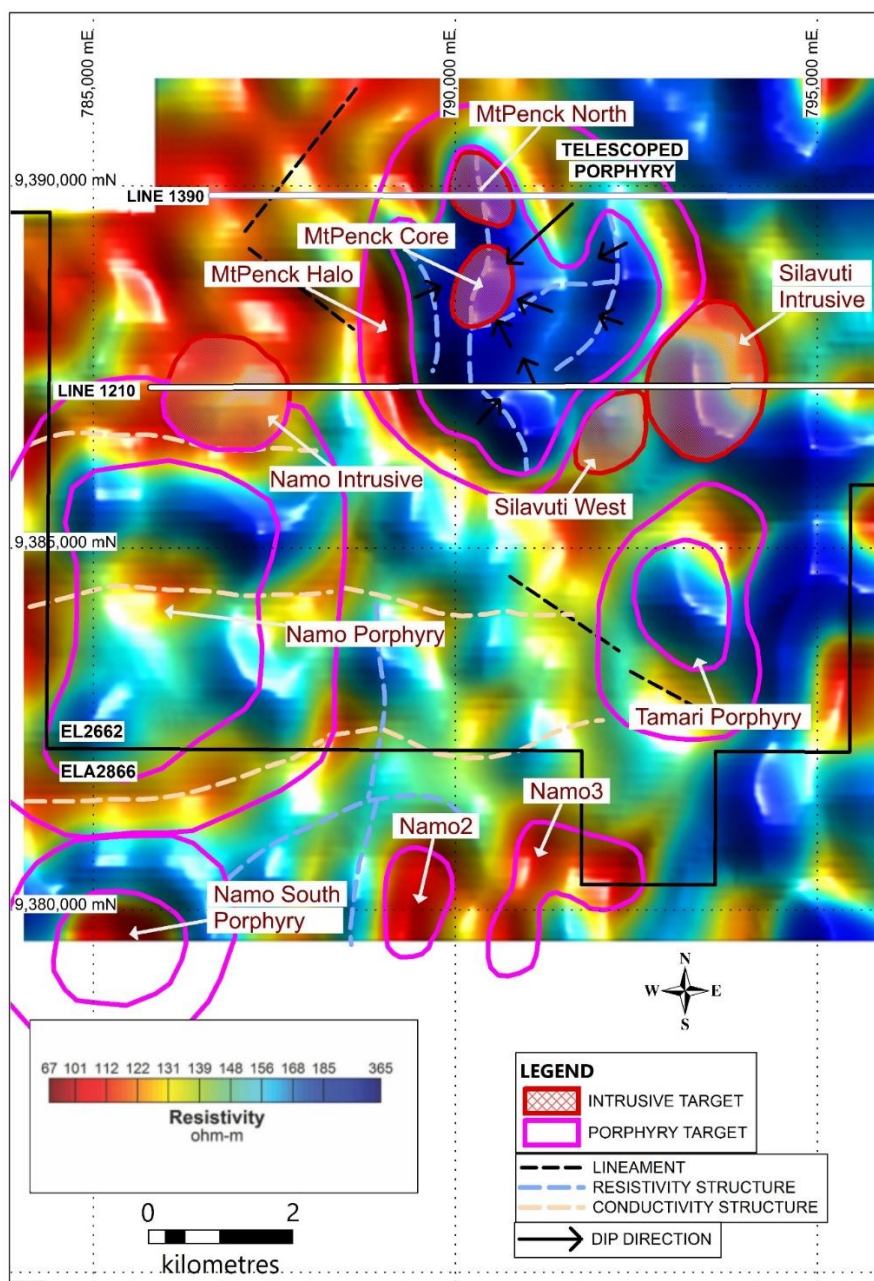


Figure 3: Airborne MT Resistivity and Targets (-550m RL)

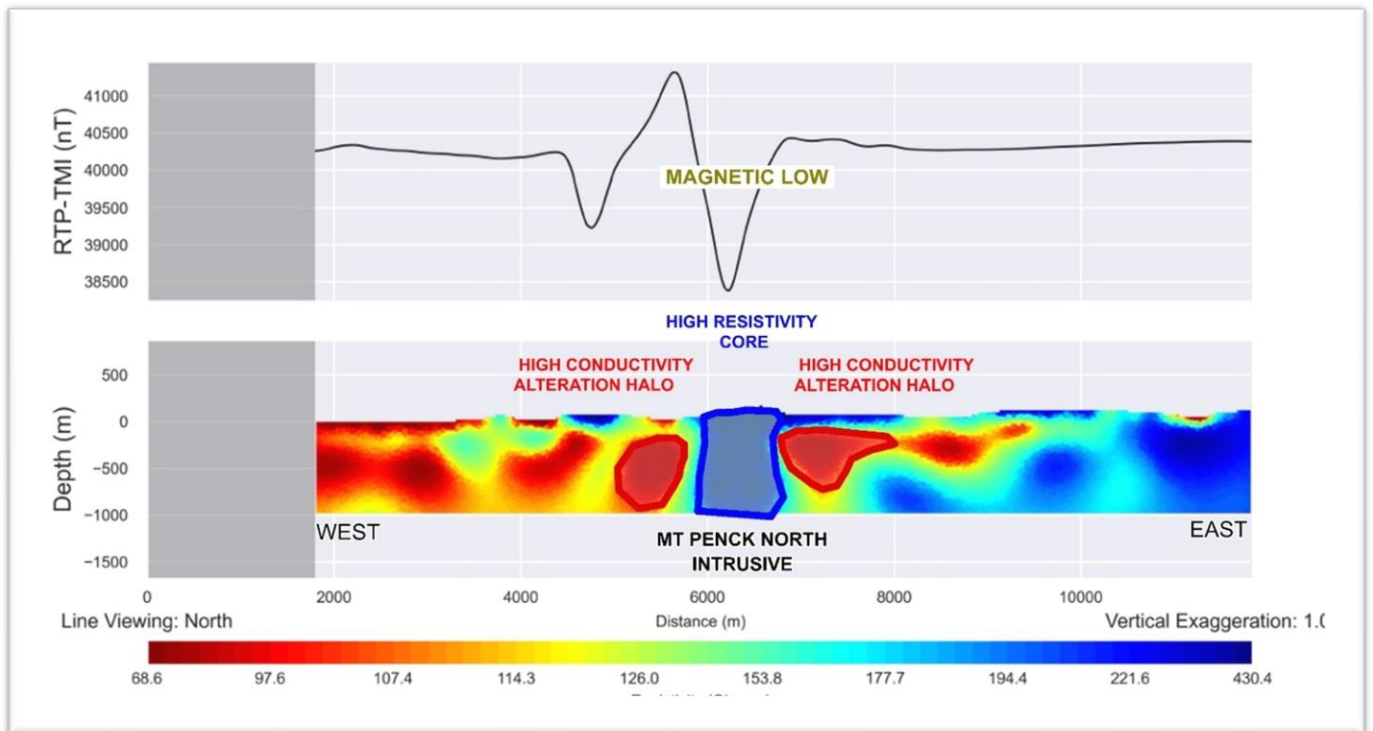


Figure 4: Mt Penck North Resistivity Model Cross-Section (Line 1390)

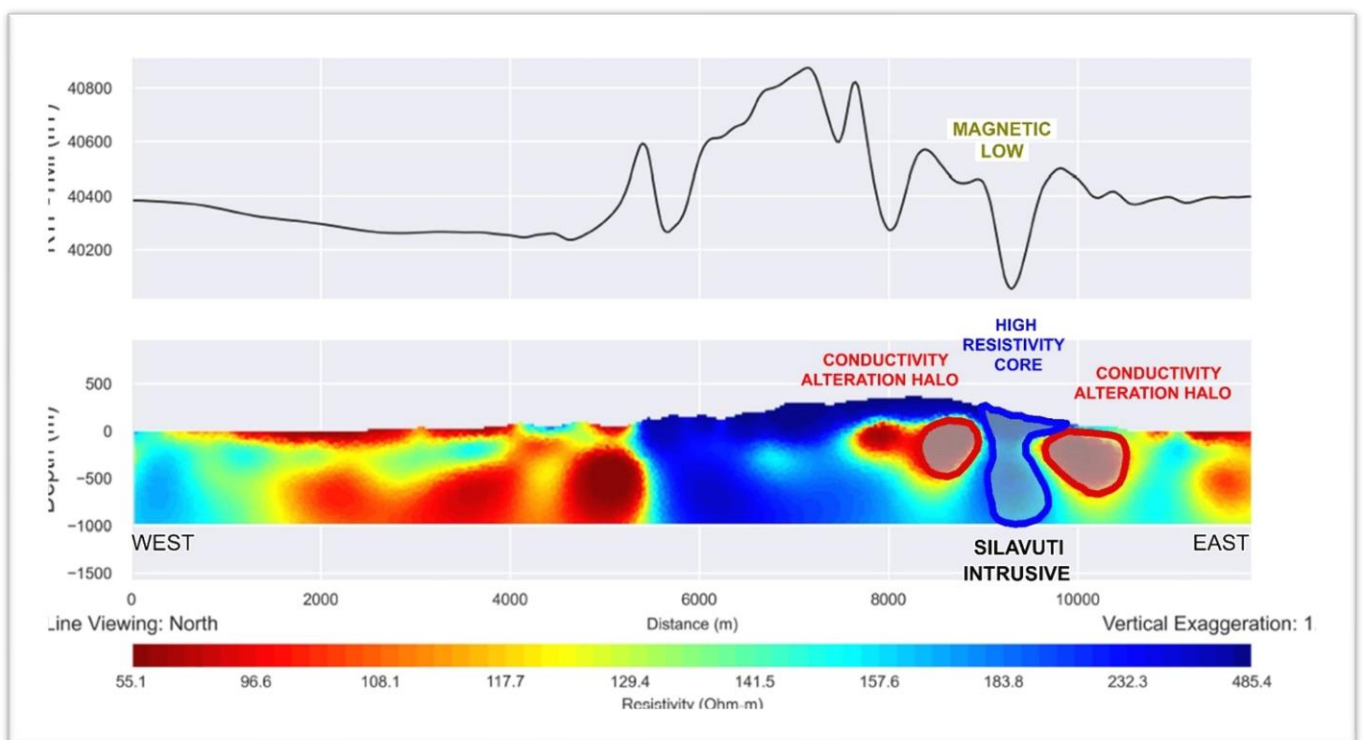


Figure 5: Silavuti Resistivity Model Cross-Section (Line 1210)



*Table 2: Mt Penck Project Airborne MT Targets*

<b>No.</b>	<b>Target Name</b>	<b>Priority</b>	<b>Target Type</b>	<b>Description</b>
1a	Mt Penck Core	1	Epithermal gold	Multiple structurally controlled epithermal gold-silver veins, feeder zones and hydrothermal breccia
1b	Mt Penck Core	1	Polymetallic intermediate sulphidation system	An 800m diameter telescoped mineralised porphyry target at over 50m depth
1c	Mt Penck North	1	Polymetallic intermediate sulphidation system	A 1km diameter target with a strong magnetic low and corresponding high resistivity
1d	Mt Penck Halo	2	Epithermal gold	A 4.5km diameter outer alteration halo with anomalous gold in stream samples
2	Silavuti Intrusive	2	Porphyry/Intrusive gold	High resistivity core with an alteration halo and anomalous gold in stream samples
3	Sialvuti West	3	Intrusive gold	Telescoped high resistivity anomaly with conductivity halo
4	Tamari Porphyry	2	Porphyry gold	A 1.2km diameter porphyry gold target with anomalous gold in stream samples
5a	Namo Porphyry	2	Porphyry Cu-Au	Large 2.4km diameter high resistivity halo surrounding elevated outcrop with an outer high conductivity halo
5b	Namo Intrusive	2	Intrusive Cu-Au	High resistivity core with 1.7km diameter high conductivity halo less than 100m depth
6	Namo South (ELA2866)	2	Porphyry or intrusive	Strong conductivity anomaly at 300m depth and extending to over 1km depth
7	Namo 2 (ELA2866)	3	Intrusive	Strong conductivity anomaly at 100m depth and extending to over 1km depth
8	Namo 3 (ELA2866)	3	Intrusive	Strong conductivity anomaly at 200m depth and extending to over 1km depth

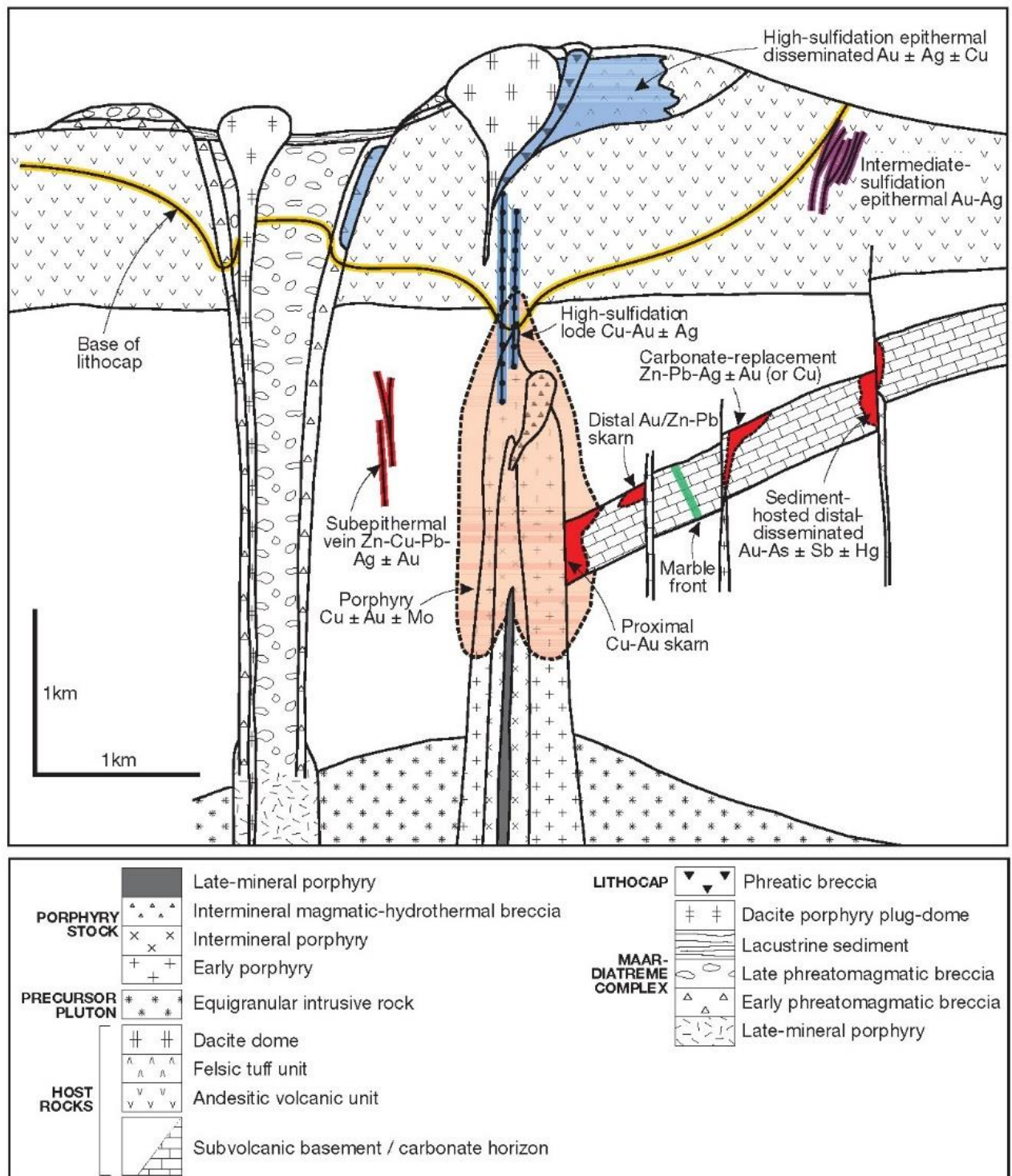


Figure 6: Anatomy of a Telescoped Porphyry Cu System (Modified from Sillitoe, 2000)



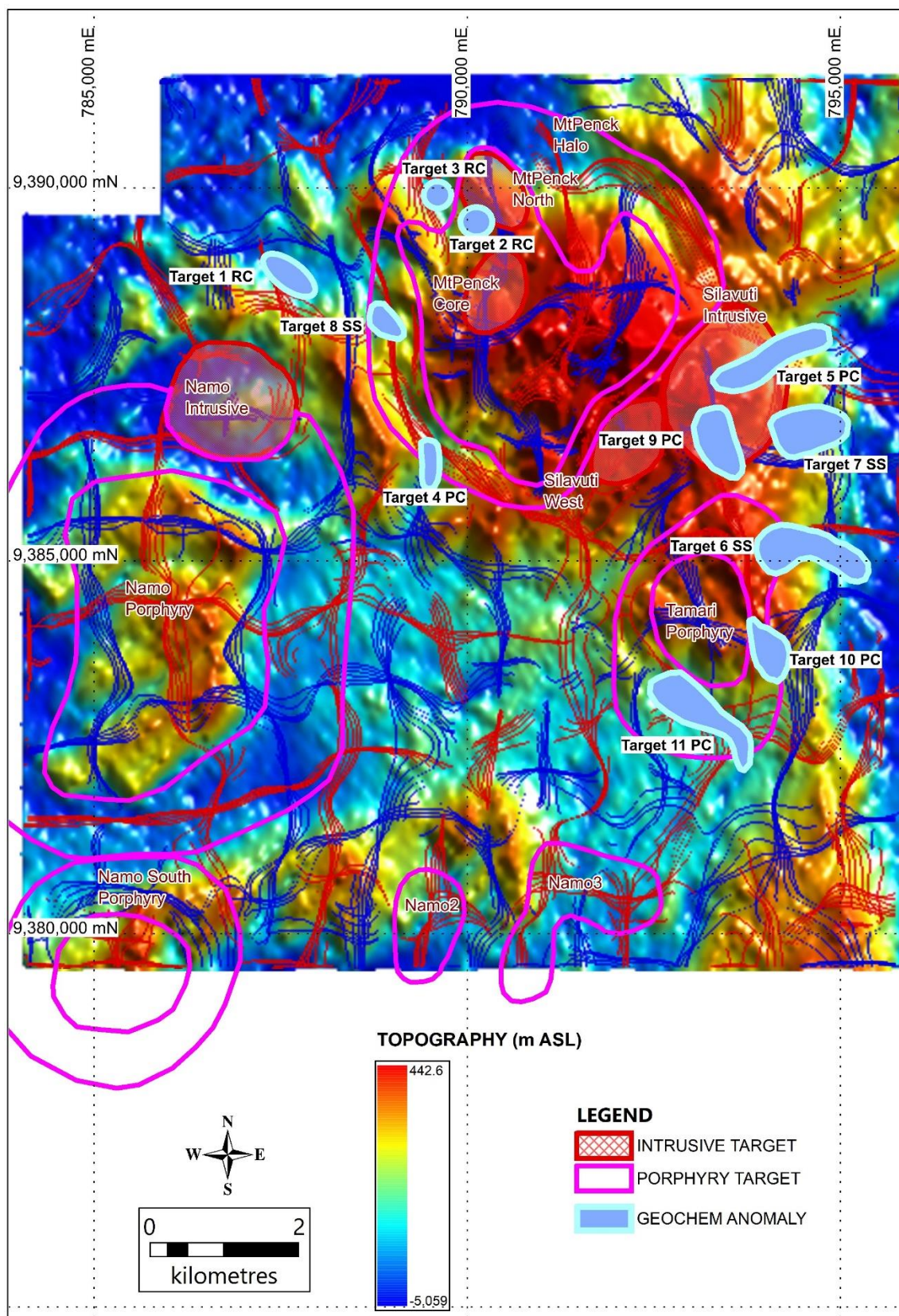


Figure 7: Airborne MT Targets and Geochemical Anomalies (Topography Image)  
(Airborne MT Lineament Analysis: Red lines = Conductivity, Blue Lines = Resistivity)

**Table 3: Historical BHP Geochemical Sample Results**

Target ID	Sample ID	Airborne MT Target	Sample Type	Easting	Northing	Result
Target1 RC	Q622007		Rock Chip	787518	9388937	43.2g/t Au & 8400ppm Cu
Target1 RC	Q622012		Rock Chip	787423	9388980	0.93g/t Au & 199ppm Cu
Target1 RC	Q622009		Rock Chip	787577	9388874	1.58g/t Au & 243ppm Cu
Target2 RC	Q621091R	Mt Penck North	Rock Chip	790106	9389562	3.84g/t Au
Target2 RC	Q621046R	Mt Penck North	Rock Chip	790020	9389607	2.64g/t Au
Target3 RC	Q621042R	Mt Penck Halo	Rock Chip	789563	9389951	10.20g/t Au
Target3 RC	Q621041R	Mt Penck Halo	Rock Chip	789563	9389951	3.31g/t Au
Target4 PC	Q62809P	Mt Penck Halo	Pan. Con.	789476	9386474	102ppb Au
Target5 PC	Q621003P	Silavuti Intrusive	Pan. Con.	793804	9387506	214ppb Au
Target6 SS	Q62803S	Tamari Porphyry	Stream Sed.	795237	9384899	43ppb Au
Target6 SS	Q621012S	Tamari Porphyry	Stream Sed.	794657	794657	12ppb Au
Target7 SS	Q62802S	Silavuti Intrusive	Stream Sed.	794995	9386891	299ppb Au
Target7 SS	Q62801S	Silavuti Intrusive	Stream Sed.	794995	9386877	252ppb Au
Target8 SS	Q621037S	Mt Penck Halo	Stream Sed.	788831	9388209	23ppb Au
Target9 PC	Q621008P	Silavuti Intrusive	Pan. Con.	793392	9386322	83ppb Au
Target9 PC	Q621009P	Silavuti Intrusive	Pan. Con.	793583	9386204	176ppb Au
Target10 PC	6048	Tamari Porphyry	Pan. Con.	794191	9383479	621ppb Au
Target11 PC	Q621073P	Tamari Porphyry	Pan. Con.	793736	9382300	2560ppb Au

This announcement has been authorised for release by the Directors of the Company. For additional information please visit our website at [www.toluminerals.com](http://www.toluminerals.com)

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**TOLU MINERALS LIMITED**

**Competent Person Statement:**

The information in this report that relates to Exploration Results, the Exploration Target and Mineral Resources for the Mt Penck project is based upon and fairly represents information compiled by or compiled under the supervision of Peter Swiridiuk - Member of the Aust. Inst. of Geoscientists. Peter Swiridiuk is a Technical Consultant and member of the Tolu Minerals Ltd. Advisory Board. Peter Swiridiuk has sufficient experience which is relevant to the type of mineralisation and type of deposit under consideration to qualify as Competent Person as defined in the 2012 Edition of the "Australasian Code of Reporting Exploration Results, Mineral Resources and Ore Resources". Peter Swiridiuk consents to the inclusion in the report of the matters based on the information in the form and context in which it appears. Additionally, Mr Swiridiuk confirms that the entity is not aware of any new information or data that materially affects the information contained in the ASX releases referred to in this report.



**Tolu License Information held at 31<sup>st</sup> March 2025**

License Number	Type of License	Tolu Ownership	Sub-blocks	Area * (km <sup>2</sup> )	Grant Date	Expiry Date
<b>ML104 Tolukuma</b>	Mining Lease	100%	N/A	7.71	01-Sep-21	28-Aug-32
<b>EL2531 Frontier</b>	Exploration License	100%	32.73	110.60	25-Feb-19	24-Feb-25 <sup>#</sup>
<b>EL2385 Udava River</b>	Exploration License	100%	58	197.78	26-May-16	25-May24 <sup>#</sup>
<b>EL2535 Avole</b>	Exploration License	100%	8	27.28	26-Jan-22	25-Jan24 <sup>#</sup>
<b>EL2536 Fane</b>	Exploration License	100%	30	102.30	26-Jan-22	25-Jan-24 <sup>#</sup>
<b>EL2538 Woitape</b>	Exploration License	100%	14	47.74	26-Jan22	25-Jan24 <sup>#</sup>
<b>EL2539 Belavista</b>	Exploration License	100%	29	98.89	26-Jan22	25-Jan-24 <sup>#</sup>
<b>EL2723 Etasi</b>	Exploration License	100%	54	183.30	08-Nov22	07-Nov-24 <sup>#</sup>
<b>EL2662 Mt. Penck</b>	Exploration License	100%	30	102.60	26-Oct-21	25-Oct-23 <sup>#</sup>
<b>ELA2780 Ipi River</b>	EL Application	100%	116	395.56	Pending	N/A
<b>ELA2859 Mt. Tafa</b>	EL Application	100%	27	92.07	Pending	N/A
<b>ELA2862 Mt. Tafa W</b>	EL Application	100%	29	98.46	Pending	N/A
<b>ELA2860 Karau</b>	EL Application	100%	20	67.91	Pending	N/A
<b>ELA2866 Namo</b>	EL Application	100%	59	201.80	Pending	N/A
<b>Total</b>			506.73	1,734		

\*1 sub-block approximately 3.41 sq.km

# Pending MRA Renewal for a further two-year term

Notes:

The PNG Mining Act-1992 stipulates that Exploration Licenses (ELs) are granted for a renewable 2-year term (subject to satisfying work and expenditure commitments) and the PNG Government maintains the right to purchase up to 30% project equity at "Sunk Cost" if/when a Mining Lease (ML) is granted.

EL2531, EL2385, EL2535, EL2536, EL2538, EL2539, EL2723 and EL2662 are currently subject to an extension renewal process. The tenements remain in force until determinations of renewal are made by the Mining Advisory Council.

ELA 2780 has been reviewed by the MAC and is awaiting final Ministerial approval.

ELA 2859, ELA 2860, ELA 2862 and ELA2866 are in process for Warden's Hearings.

## JORC Code Table 1, 2012 Edition – Report of Exploration Results

### Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>Ground geochemical sampling was supervised and reported by on-site geologists to ensure sample representivity.</li> <li>All rock and channel samples were logged in a rock-chip sample ledger and sent to Intertek laboratories for assaying using standard laboratory techniques.</li> <li>Material aspects of mineralisation are noted in the text of the document.</li> <li>Historic exploration drilling results are quoted.</li> <li>Historic sampling methodology included stream sediment sampling (-#10 and -#80), Panned Concentrate, spade and auger soil sampling, rock chip sampling of float and outcrop, chip channel of creek outcrops and hand dug or bulldozer trench faces, Aircore drill sampling and diamond core sampling.</li> <li>No data are available on measures taken to verify historic sample representivity.</li> <li>The historic data are considered reliable and of sufficient quality based on a review of available literature.</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul style="list-style-type: none"> <li>No drilling has been undertaken by Tolu.</li> <li>Historically, Indo Pacific drilled a total of seven diamond drill holes and collected 425 core samples from DDH1 to DDH5 and 281 core samples from DDH6 and DDH7 for 1,098.5m total drilled ranging in depth from 101.8m to 287.0m</li> <li>Historical Kanon drilling included 75 diamond holes MPD001 to MPD075.</li> <li>Historic diamond core sampling was half core: 1.0m or 2.0m PQ &amp; HQ (Indo Pacific) and mostly 1.0m NQ &amp; HQ (Kanon).</li> <li>No historic drill logs or data are available for the BHP and Indo Pacific drilling.</li> <li>Historic Kanon drill logs or data show that in most cases qualitative logging was completed for the total length of each hole.</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul style="list-style-type: none"> <li>No drilling has been undertaken by Tolu.</li> <li>Historical drill core was sampled selectively: one metre samples were taken in argillically altered or silicified zones and elsewhere 2m intervals were sampled.</li> <li>Historic Kanon diamond drill logs in most cases do not record core loss and no details are available of Kanon's methods for assessing core recovery or measures taken to ensure representative sampling.</li> <li>No data are available regarding possible sample bias.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>No drilling has been undertaken by Tolu.</li> <li>No Mineral Resource estimation, mining studies or metallurgical studies have been completed.</li> <li>Historic Kanon drill logs show that in most cases qualitative logging completed for the total length of each hole.</li> <li>No historic drill logs or data are available for the BHP and Indo Pacific drilling.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> </ul>	<ul style="list-style-type: none"> <li>No drilling has been undertaken by Tolu.</li> <li>No data are available on historic Aircore drill sampling.</li> <li>Indo Pacific and Kanon diamond drilling used half core for sampling, with one half retained in the core tray.</li> <li>Historic samples were assayed at independent and reputable laboratories indicating preparation techniques would have followed standard industry best practice.</li> <li>No data are available on QAQC procedures or measures taken to ensure representivity of historic sampling.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>Historic drill sample sizes are considered appropriate.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Rock and trench/channel samples taken by Tolu were sent to Intertek Laboratories in Lae, PNG for preparation. All samples are sorted, dried to 180°C, crushed to &lt;2mm and pulverised (95%&lt;75µm) up to 2kg. They were fire assayed at the Lae laboratory for total gold with a 30g charge (FA30). All rock and trench samples have undergone 4 Acid Digest in teflon tube + ICPMS (4A/MS48) for a suite of 48 elements at their Townville office (Ag, Al, As, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Fe, Ga, Ge, Hf, In, K, La, Li, Mg, Mn, Mo, Na, Nb, Ni, P, Pb, Rb, Re, S, Sb, Sc, Se, Sn, Sr, Ta, Te, Th, Ti, Tl, U, V, W, Y, Zn, Zr).</li> <li>Acceptable levels of accuracy are obtained in the Intertek assaying results of Au 0.01 ppm, Ag 0.05 ppm, As 0.5 ppm, Ba 0.1 ppm, Cu 0.5 ppm, Mo 0.1 ppm, Pb 0.5 ppm, Sb 0.05 ppm and Zn 1 ppm.</li> <li>All samples have been stored at Intertek laboratories for future re-analysis if required.</li> <li>Duplicates and blanks have not been used by TOK due to the reconnaissance nature of the sampling program.</li> <li>Duplicates, Standards and Blanks have been used by Intertek Laboratories for their own quality assurance procedures.</li> <li>No drilling has been undertaken by Tolu.</li> <li>Half of the historical drill core was sent for assay and the other half was stored at the core shed on site. BHP core was assayed by Analabs. Analytic techniques used were 50g fire Assay for Au, AAS for Cu, Pb, Zn, Ag and As.</li> <li>Historical Kanon drill samples were sent to ALS Chemex Laboratories in Brisbane where they were heated for 2 hrs at 220°C to satisfy quarantine requirements then pulverized to &gt;85% passing 75 micron. A 25gm split was weighed for analysis. Analysis was by aqua regia digest followed by solvent extraction and final reading by AAS. This method (Au-AA41) has detection range of 0.01-100ppm Au. ALS Chemex Laboratory in Brisbane has NATA registration and ISO 9002 certification.</li> <li>Historic Kanon trench samples were sent to Intertek Caleb Brett and were prepared for analysis in Lae, Papua New Guinea and air freighted to Jakarta, Indonesia for analysis. The samples were dried, crushed to &gt;75% passing 2 mm, split, and pulverised to &gt;90% passing 75 micron. Gold analysis was by 50 gram fire assay with AAS finish. Base metals analysis was by AAS following a hydrochloric/perchloric digestion. Intertek Caleb Brett is an ISO:17025 accredited laboratory.</li> <li>Duplicates were not reported.</li> <li>No Geophysical tools were used downhole.</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>Verified by senior geologist onsite at the time. The nature and style of sampling and mineralisation at this stage of exploration for this project is adequately verified by this work.</li> <li>No historical drillholes have been twinned.</li> <li>All assay data is stored as digital Excel spreadsheets and stored in reports submitted to the MRA library in digital PDF and Excel formats.</li> <li>Historical drilling undertaken by Kanon has adequately supported previous exploration work and successfully defined further exploration targets.</li> <li>In 2006-07 Kanon primary field data, and in 2023 Tolu primary field data, were recorded in field notebooks, on field maps and on drill log sheets and entered into a digital database on laptop computers in the field camps.</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>No drilling has been undertaken by Tolu.</li> <li>Samples have been located by hand held GPS.</li> <li>Historical drillholes were located using airborne photos and GPS.</li> <li>Map Datum is AGD66, Zone 55.</li> <li>Topographic control is low with 40m contours from 1:100,000 plans and 10m contours from airborne DTM.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>Refer to any attached plans and tables for rock and trench/costean sample spacing.</li> <li>Tolu trench locations and hence data spacing, and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedures. Data spacing and improved topographic control need to be reviewed in detail from additional drillhole and trench/costean databases prior to undertaking a resource estimate.</li> <li>Sample compositing was not applied.</li> <li>Airborne MT (Mobile Magneto Tellurics) geophysical surveying was undertaken by Expert Geophysics with a 150m line spacing orientated east-west. Conductivities were modelled using proprietary 2.5D modelling software and results supplied as 3D voxels, 100m depth slices and cross-sections along each survey line. Sample spacing with the helicopter borne (AS 350 B3E helicopter) MT survey is approximately every 2m and bird height of 60-70m. Airborne magnetics is also collected with a Geometrics G822A Cesium Magnetometer, with sampling every 0.1 seconds (2.5m) and average magnetometer height of 110m.</li> <li>Expert Geophysics executed lineament analysis of the inverted data in 3D, and using VLF EM and magnetic data to study properties of the bedrock units.</li> <li>As a result of the adaptive energy filtering, axes of conductive and resistive anomalies are represented in 2D depth plan and 3D view formats. The lineament analysis results show conductive and resistive axes extracted from a series of apparent conductivity values in a specified data frequency range.</li> <li>Adaptive energy filtering along with autocorrelation function calculation was applied to inverted resistivity grids for a set of depths, every 100 m, and the results were combined into anomalies trends grids/maps corresponding to different elevations and into 3D voxels for the entire survey block. The procedure helps to find positions of geophysical data extremums, minimal and maximal and correlate them as anomaly axes over the survey area.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul style="list-style-type: none"> <li>Historical drill holes are designed to intersect known mineralisation from surface trench results in a nominally perpendicular orientation as much as is practicable.</li> <li>Sample intervals are selected based upon observed geological features and the strike of the narrow quartz veins. Mineralisation is narrow 5 to 25m thickness.</li> <li>The Author is not aware of any sampling bias.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>Access to the tenement is controlled and historical drill samples were stored on-site in a remote location. Site employees transport samples to the Intertek analytical lab. The laboratory compound in Lae is independent and secure.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>Sampling and assay methods are recorded in historical reports from 2004 to 2023.</li> <li>There are no audits or reviews of sampling techniques.</li> </ul>



## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul style="list-style-type: none"> <li>There are no joint ventures or partnerships in place.</li> <li>The licence was granted on 26 October 2021 for a term of 2 years and is in good standing. A tenement renewal has been lodged which includes a required 50% reduction in tenement area.</li> <li>An additional ELA2866 Namo was lodged to the south of the MtPenck tenement.</li> <li>Tolu Minerals Limited have a 100% ownership of Exploration Licence EL2662 totalling 102.6 km<sup>2</sup> in the renewal application.</li> <li>There are no known impediments to operating in EL2662.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Systematic exploration of the property commenced in 1968 where BHP Havana and Placer completed regional exploration for porphyry-style copper mineralisation. They completed initial Aircore drill testing in 1898 with 33 drillholes. The younger Pliocene-age volcanics, which host gold mineralisation where not investigated.</li> <li>In 1981 Nord Resources completed helicopter supported stream sediment sampling targeting gold and base metal mineralisation. Nord assayed their samples for Au, Ag, As, Cu, Pb and Zn but failed to identify any geochemical anomalies.</li> <li>From 1985 to 1990, BHP completed an initial regional program of bulk leachable extractable (BLEG) and minus 80 mesh drainage sampling, which located a 17 ppm Au pan concentrate in Meto Creek, the first indication of gold at Mt Penck. BHP also completed geological mapping, rock chip sampling and ridge-spur soil sampling. In 1988, BHP completed a 600 line.km airborne magnetic-radiometric survey which outlined Kavola prospect as a coincident magnetic low / potassium high anomaly. A total of 1,140.5m was drilled in 33 drillholes (PA01-33) ranging in depth from 34m to 74m. Results indicated that both Peni Creek and Koibua mineralised zones are controlled by northwest structures in argillic altered volcanics at Peni Creek, and in altered hornblende porphyritic quartz andesite at Koibua. In 1990, BHP Gold Limited merged with Newmont Australia to form Newcrest Mining Limited, and the tenement PA617 was relinquished.</li> <li>From 1994 to 1997, Indo Pacific completed geological mapping, bulldozer costeaning, hand trenching and 7 diamond drillholes for 1,098.5m ranging in depth from 101.8m to 287.0m. Three prospects were confirmed with gold at Kavola East, Koibua and Peni Creek.</li> <li>From 2003 to 2015 in EL1322 Mt Penck, Kanon Resources completed geological mapping, rock chip sampling, stream sediment sampling, grid auger soil sampling, hand trenching, bulldozer trenching, 3DIP ground geophysics and diamond drilling of 75 drillholes totalling 9,940.1 metres. From a grid-based soil sampling program covering 1400m by 1000m, spectral analyses were completed by AusSpec showing a strong correlation of gold with argillic clay alteration.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>Mt Penck is located at the north-western end of a major northwest trending structural corridor (the Kulu-Simi Corridor), an extensional zone that localised the emplacement of Oligocene-age intrusions and the deposition of Eocene-Oligocene volcanics.</li> <li>The volcanic sequence at Mt Penck consists of andesitic to dacitic lavas and pyroclastics, volcanic breccias, diatreme breccias and andesite dykes, intruded by andesitic to dacitic porphyry intrusions. The lavas are</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>generally massive to blocky, porphyritic with hornblende, feldspar, and minor quartz phenocrysts.</p> <ul style="list-style-type: none"> <li>• Diatreme breccia was mapped at Kavola. The lithologies that dominantly host the alteration and mineralisation are porphyritic lavas, volcanic breccias, diatreme breccias and porphyry intrusives. Medium to fine dacite porphyry intrusives have been described at Kavola, Koibua, and Peni Creek.</li> <li>• Three main styles of alteration have been noted, propylitic, argillic, and phyllic, with local development of silica alteration. Argillic-phyllic alteration zones typically carry higher gold (&gt;0.20 g/t) and arsenic and host the gold-bearing quartz veins. Gold mineralisation is controlled by structures that focus the gold-bearing fluids within the broader alteration zone. At Kavola, the mineralisation is controlled by NE-trending dilational structures.</li> <li>• Five main mineralised zones have been identified, Kavola East, Kavola, Koibua, Peni Creek and Peni Creek South. The highest gold values are related to intense argillic alteration, silicification and various breccias as well as quartz-carbonate-sulphide stockwork.</li> <li>• Mt Penck shares similarities with the acid-sulphate deposits at Goldfield, Nevada, Red Mountain, Summitville, Colorado and Cerro Rico, Bolivia. These deposits typically have pipe-like and lenticular brecciated veins with a leached vuggy quartz-kaolinite core, zoning outwards into argillic and finally barren propylitic alteration.</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li>• A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> <li>◦ easting and northing of the drill hole collar</li> <li>◦ elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>◦ dip and azimuth of the hole</li> <li>◦ down hole length and interception depth</li> <li>◦ hole length.</li> </ul> </li> <li>• If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>• No drilling has been undertaken by Tolu.</li> <li>• A summary of all historical drillhole and geophysical anomaly information is noted within Tables in the text of this report or referenced reports.</li> <li>• Tolu has acquired historical reports with drillhole and trench information that have been reviewed and interpreted.</li> <li>• Digital databases have also been acquired over all known prospects within EL2662.</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>• In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>• Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>• The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>• Exploration results are reported typically within epithermal veins. Trench grades are compiled using length-weighted average grades.</li> <li>• Cut-off grades are stated in tables in the report.</li> <li>• There are no aggregations</li> <li>• No metal equivalent values are used.</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>• These relationships are particularly important in the reporting of Exploration Results.</li> <li>• If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>• If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<ul style="list-style-type: none"> <li>• The relationship between historical mineralisation widths &amp; intercept lengths from trench/costeans is well understood.</li> <li>• Historical drillholes are generally targeted perpendicular to known veins. True width projections are noted in Tables where relevant within the text of this report. Unless otherwise stated, downhole intercepts are downhole lengths.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>• Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	<ul style="list-style-type: none"> <li>• Appropriate maps, sections, and tabulations of drillhole, intercepts are included where relevant.</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul style="list-style-type: none"> <li>Comprehensive reporting of all trench and rock sample results are summarised and representative reporting is used.</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	<ul style="list-style-type: none"> <li>In addition to the reported trench and rock samples and historical drill results, the historic database includes stream sediment samples, soil and rock geochemical data, airborne magnetic/radiometric data, ground 3DIP/Resistivity geophysical data, and remote sensing data.</li> <li>All meaningful exploration data undertaken to date by Tolu has been included in their ASX announcements.</li> <li>No metallurgical testing data are reported.</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul style="list-style-type: none"> <li>Current Tolu exploration is now aimed at testing for additional Airborne MT porphyry targets to determine additional sources of mineralisation. This will include follow-up soil sampling, trenching and drilling aimed at discovery of a new orebody.</li> <li>Appropriate plans are included where possible.</li> <li>The nature of planned further work is provided in the body of text.</li> </ul>