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ASX:TOK, OTCQX: TOLUF

ASX, OTCQX Announcement

9 September 2024

## Initial Airborne MT Results Define Significant Epithermal and Porphyry Drill Targets

### HIGHLIGHTS:

- Phase 1 of the Airborne MT survey completed over the Tolukuma area
- Airborne MT Results at Tolukuma show advanced copper-gold porphyry and gold epithermal mineralising targets ready for drill testing
- Significant conductivity anomaly within ML 104 demonstrates continuing mineralisation from the minesite to over 2km beyond the Southern boundary
- Belavista advanced target, approximately 10km West of Tolukuma mine has adjacent historic samples of 8.88g/t gold, 140g/t silver, 990ppm copper and 5.6% zinc within sulphide veining that indicate porphyry mineralisation
- Significant new areas of mineralisation identified surrounding Tolukuma ready for drill testing
- To date over 700km<sup>2</sup> flown of the contracted 2,200km<sup>2</sup>
- Airborne MT to continue over the Ipi River and Mt Penck tenement areas
- Awaiting Final modelling results and Computer Generated Structural Analysis to delineate further additional advanced targets and drill sites
- Results to date validate Tolu's decision to advance the timing of the Airborne MT, significantly increase Tolu's understanding of its tenements and provides multiple targets for further exploration and Mineral Resource growth

Iain Macpherson, MD & CEO of Tolu Minerals Ltd. said:

*"It is very pleasing that the preliminary results of the Airborne MT flown over the mine and adjacent areas have delivered compelling results. A number of anomalous zones identified by the Airborne MT point towards additional mineralised targets over the Tolukuma gold mine and surrounding areas, providing immediate drill targets that have the potential to significantly grow the Mineral Resource Estimate and ultimately the production scale of the operation."*

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*In addition to further demonstrating continuity of the Tolukuma epithermal structures to the South, which is currently our primary short-term target area, we have now defined at least two significant porphyry copper-gold targets as well as near surface epithermal gold systems at Idave and Karame that are interpreted to replicate the Tolukuma gold system within ML 104. The Tolukuma vein system seems to form part of a deeper and larger porphyry system to the West that is driving the mineralisation.*

*Further data processing is underway and we look forward to those results as they come to hand. These potential discoveries combined with technologically advanced interpretation methods, supports Tolu's strategy to not only fast track the expansion of the Tolukuma mine, but also rapidly build a portfolio of significant assets.*

*Results to date provide significant additional options to the Company to continue to progress its aggressive exploration programmes and development strategy and confirms the validity of the decision to undertake the Airborne MT earlier than initially scheduled."*

**Tolu Minerals Limited (Tolu)** is pleased to announce preliminary results from its Phase 1 of the Airborne Mobile Magneto Telluric (MT) survey covering 723km<sup>2</sup> including ML 104 and surrounding exploration licences. The MT survey will next be completed over Tolu's porphyry/skarn exploration licence application at Ipi River, ELA 2780.

On completion of these mainland legs, the MT survey will be flown over Tolu's gold and polymetallic Cu-Pb-Zn sulphide system at Mt Penck on New Britain Island (refer to Announcement dated 25 June ([www.asx.com.au/markets/company/tok](http://www.asx.com.au/markets/company/tok))).

Initial Airborne MT results include modelled conductivity covering 312km<sup>2</sup> (43% of the flown area), indicating two interpreted porphyry copper-gold systems that extend to over 1.5km in depth. Conductivity 2.5D modelling by Expert Geophysics (Figure 2) reveals three possible near surface Epithermal Low Sulphidation systems that may replicate the existing Tolukuma mine system. The 'Tolukuma Epithermal System' conductivity anomaly within ML 104 may be replicated again at the 'Karame Epithermal System' and 'Idave Epithermal System', a further 2.5km and 4km to the West respectively. These gold mineralising advanced target areas are planned to be followed-up with surface mapping and drilling.

The underlying 'Tolukuma Porphyry' target occurs immediately beneath the Tolukuma Gold Mine, along the contact of the Tolukuma Intrusive Complex (TIC), and extends a further 5km to the West (Figure 1). Using an idealised model of porphyry-epithermal systems, this target area at depth (Figures 3, 4 and 5), is interpreted to be the main driving heat source for the gold mineralisation at the Tolukuma Gold Mine.



**Photo 1: Airborne MT Underway over Tolukuma, showing the Array suspended Underneath the Helicopter**

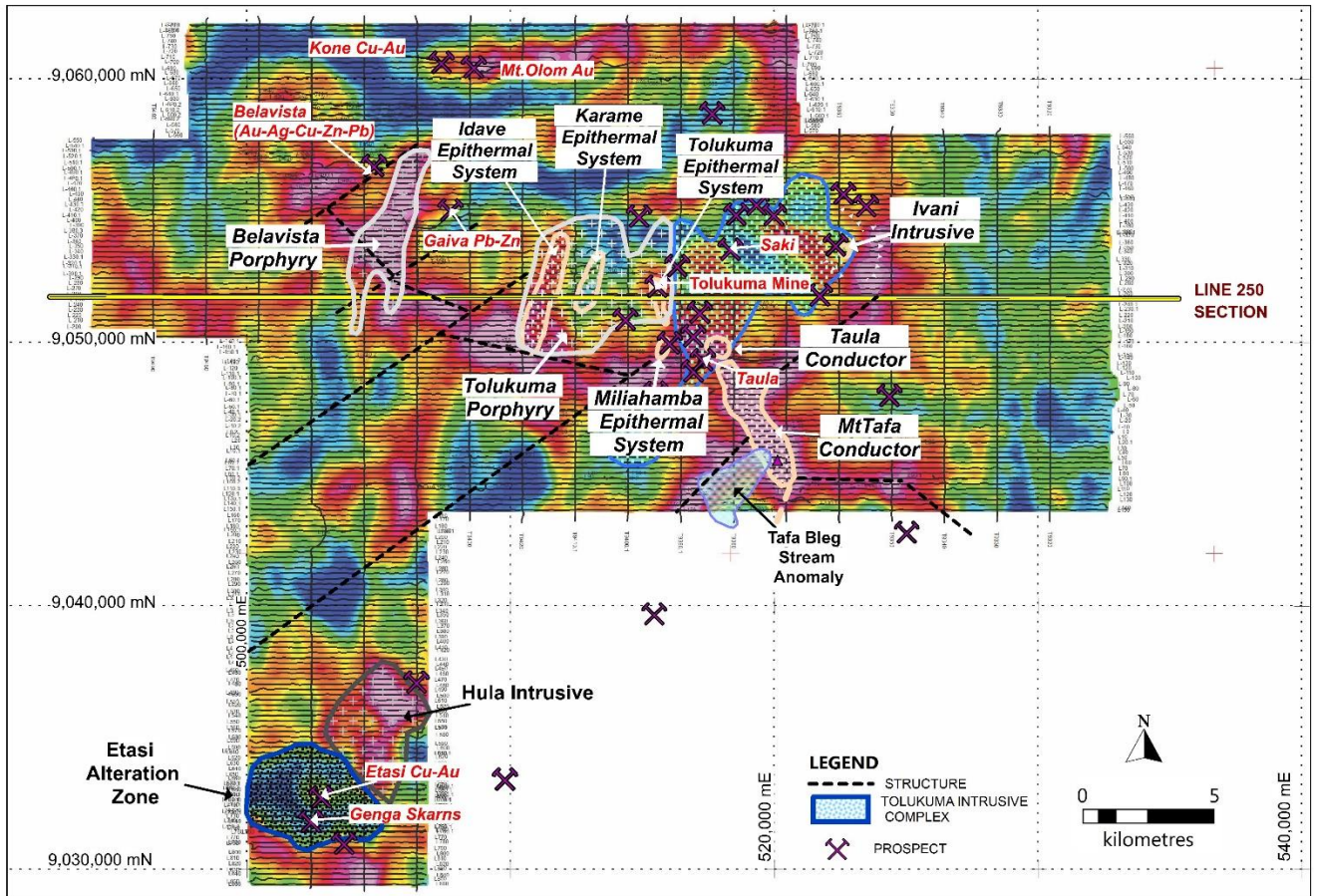


Figure 1: Interpreted Targets within Phase 1 Area Airborne MT Image<sup>1</sup>  
(223Hz Conductivity Image. Red = Higher Conductivities)

<sup>1</sup> Phase 1 represents 700km<sup>2</sup> of the contracted 2,200km<sup>2</sup>

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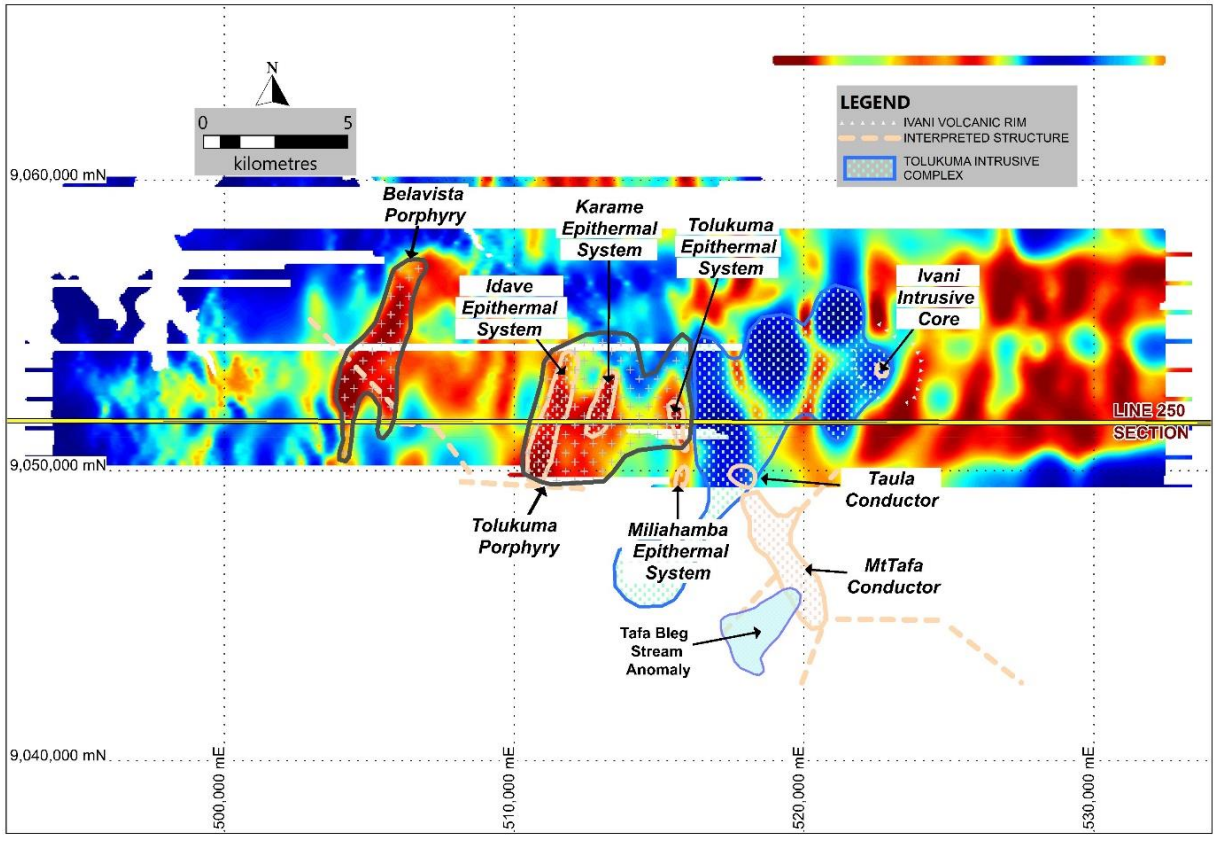


Figure 2: Interpreted Targets within Modelled Conductivity Image at 800m RL  
(Red = High Conductivity / Low Resistivity see below)

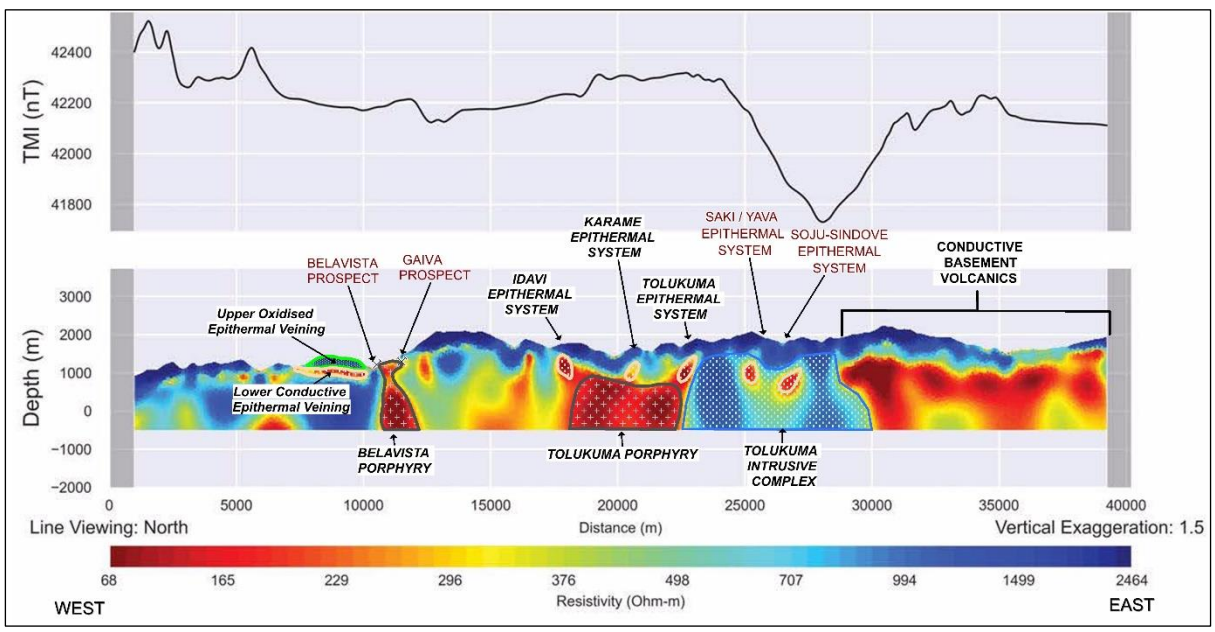
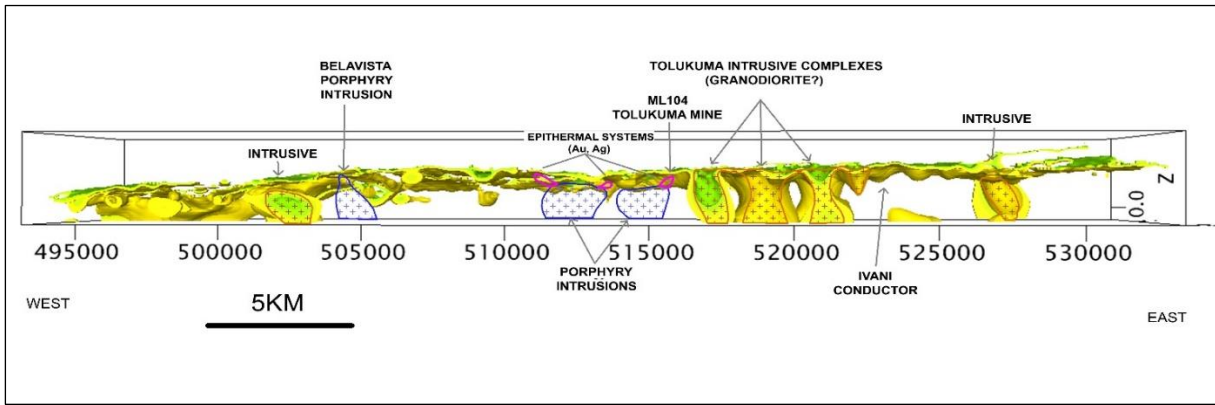
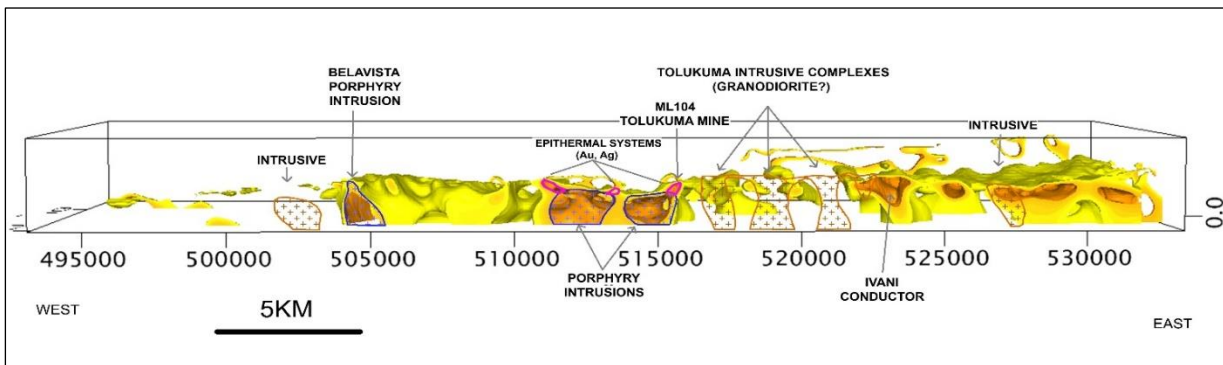


Figure 3: Interpreted Targets along Airborne MT Cross-Section  
(modelled Conductivity/Resistivity along Line 250 West-East)



**Figure 4: Interpreted Geology along Airborne MT Cross-Section  
(modelled Resistivity West-East)**



**Figure 5: Interpreted Geology along Airborne MT Cross-Section  
(modelled Conductivity West-East)**

The interpreted ‘Belavista Porphyry’ Conductivity anomaly occurs adjacent to the Belavista and Gaiva prospects, where historical sampling and geological mapping indicates porphyry gold and base indicators (Figure 5 and 7). At 2km depth, the Airborne MT shows this target is related to a broader 4km wide intrusive system. It represents a mineralisation target similar to other large mineralising systems such as at Batu Hijau porphyry copper-gold deposit in Indonesia<sup>2</sup> and the Kidston Mine in Australia<sup>3</sup>. Clearing for drill pads for drilling will be planned once final modelling over the entire survey area is finalised.

Gold vein systems within ML104 have been the focus of historical mining activities within the Reidel Shear structures forming the Tolukuma Rhomboid system (Figure 6). Airborne MT and historical ground 3DIP/Resistivity geophysics suggest this style mineralisation extends at least a further 2,600m South beyond ML 104 along an underexplored section towards the Miliahamba prospect. Tolu is planning a mapping and sampling program to significantly

<sup>2</sup> Batu Hijau porphyry copper-gold deposit (Meldrum et al., 1994, in Corbett and Leach, 1998).

<sup>3</sup> Kidston Mine, Australia (Corbett and Leach, 1998).

extend existing gold resources within and beyond the Mining Lease into Tolu's EL 2531 prior to drilling to extend Mineral Resources.

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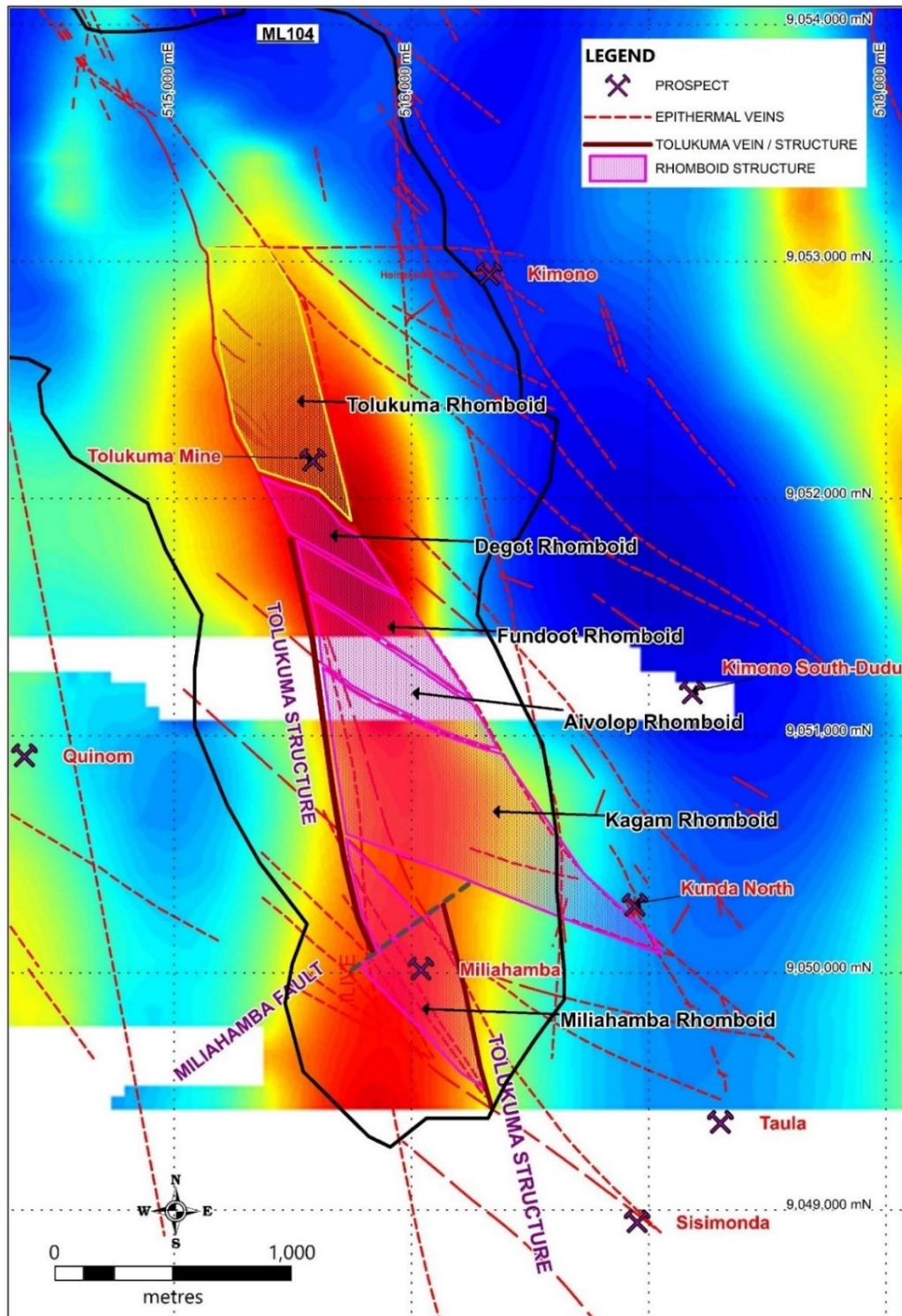


Figure 6: Airborne MT Anomaly Related to Gold Mineralisation within ML104 (modelled Conductivity at 1000m RL. Red = High Conductivity)

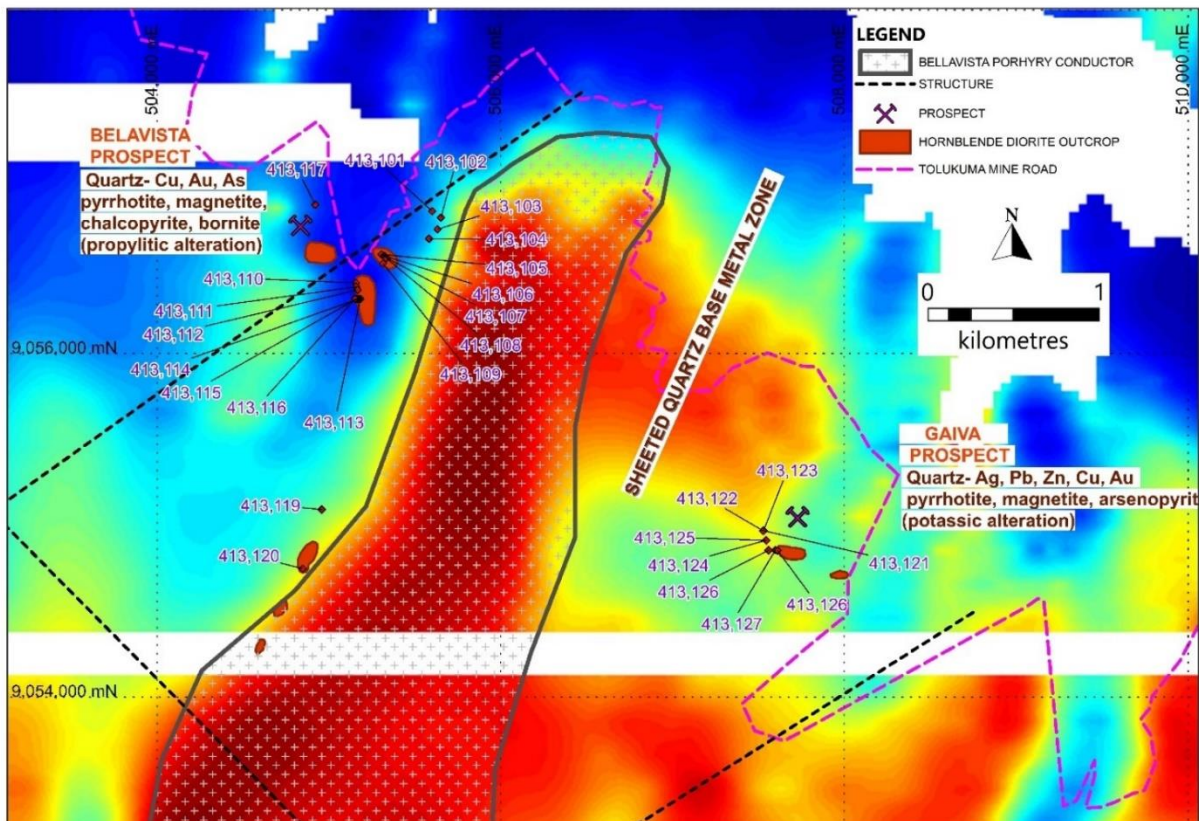
## Belavista Porphyry Airborne MT Anomaly

Historical exploration work carried out by Tolukuma Gold Mines in 2002 highlighted the presence of sheeted quartz-massive sulphide veins, that were historically interpreted to represent the peripheral expressions of a porphyry intrusion. These sheeted veins occur on the Northwestern and Eastern boundaries of the 'Belavista' Airborne MT conductor, which is interpreted to be an 850Ha gold and base metal porphyry system (Figure 6) that extends to over 1km depth.

Mineralisation is characterised by massive pyrite ( $\text{FeS}_2$ ), pyrrhotite (iron sulphide), magnetite ( $\text{Fe}_3\text{O}_4$ ), sphalerite ( $\text{Zn,FeS}$ ), galena ( $\text{PbS}$ ) and chalcopyrite ( $\text{CuFeS}_2$ ).

Historical samples at Belavista (Table 1) and Gaiva (Table 2) prospects include 8.88g/t gold, 140g/t silver, 990ppm copper and 5.6% zinc. The style of the outcropping geology samples suggests two styles of mineralisation including quartz-massive sulphide veins and disseminated porphyry Cu-Au mineralisation. For example, the Batu Hijau porphyry copper-gold deposit in Indonesia was discovered by following up on gold anomalies being shed from peripheral veins.

Drill holes will be planned following further analysis of final modelling and computer generated structural analysis of the Airborne MT results. Ground inspection will be carried out to best locate drill sites.



**Figure 7: Airborne MT Porphyry Target Showing Belavista and Gaiva Prospects**  
(Airborne MT Image at 100mRL. Red is high conductivity)



**Table 1: Belavista Historical Rock Sample Results**

Easting	Northing	Location	Sample	Type	Au (g/t)	Ag (g/t)	Pb (ppm)	Cu (ppm)	Zn (ppm)	Sb (ppm)	Description
505600	9056829	Karpetu Ck	413101	RF	0.39	10	154	115	40	41	Pyrite sericite altered diorite
505650	9056791	Karpetu Ck	413102	RF	0.21	7.6	9	100	29	28	Diorite feldspar porphyry, pyrite sericite and traces biotite
505631	9056723	Mule track	413103	RF	0.18	1.8	34	380	20	23	Bulk white mica, quartz disseminated pyrite
505581	9056667	Mule track	413104	RF	0.12	<0.01	8	230	5	35	Bulk white mica, quartz disseminated pyrite
505305	9056576	Mule track	413105	RC	4.88	5.9	37	20	47	26	Pyrite altered diorite with disseminated and veinlet chalcopyrite
505320	9056569	Mule track	413106	RC	0.1	0.7	71	68	16	28	Pyrite clay pug zone, limonite veinlets
505326	9056561	Mule track	413107	RC	0.16	1.8	116	38	25	27	Pyrite altered hornblende diorite with disseminated and veinlet chalcopyrite
505333	9056554	Mule track	413108	RC	3.35	6.1	43	56	61	27	Xenolith in hornblende diorite
505314	9056523	Mule track	413109	RF	0.49	9.4	92	370	14	55	White quartz, pyrite disseminated veinlets, talc clay
505157	9056411	Kagam ck	413110	RF	2.86	17.1	730	990	97	86	Quartz with massive pyrrhotite, disseminated chalcopyrite, CuO
505159	9056388	Kagam ck	413111	RF	0.83	8.2	580	320	124	121	Quartz with massive pyrrhotite, disseminated chalcopyrite, CuO
505165	9056370	Kagam ck	413112	RF	0.14	2.5	22	122	180	24	Potassic feldspar, altered hornblende diorite, disseminated chalcopyrite, bornite as hairline fracture infills
505181	9056318	Kagam ck	413113	RC	0.42	0.6	19	41	122	24	Potassic feldspar, altered hornblende diorite, disseminated chalcopyrite, bornite as hairline fracture infills
505171	9056318	Kagam ck	413114	RC	0.14	0.8	19	136	22	49	Quartz, pyrrhotite, disseminated chalcopyrite, CuO
505161	9056318	Kagam ck	413115	RC	0.13	0.2	85	38	43	38	Sericite silica leached massive sulphide with disseminated pyrite
505152	9056318	Kagam ck	413116	RC	0.46	2.6	33	35	21	24	Massive sulphide on footwall side of structure, disseminated pyrite
504920	9056866	Mule track	413117	RF	0.53	1.1	22	280	57	25	Vuggy quartz, sulphide leached out, secondary crystal quartz growth
505602	9058101	Kagam ck	413118	RC	0.38	1.5	25	5	66	177	10cm quartz pug zone, graphitic schist
504957	9055091	Kagam ck	413119	RF	4.1	4.2	12	19	45	87	Pyrite altered diorite, disseminated pyrrhotite
504846	9054747	Barega ck	413120	RC	0.15	7.5	17	2	41	26	Intense sericite altered diorite, pyrite and chalcopyrite

NB: RF = Rock Float Sample. RC = In-Situ Rock Chip Sample

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**Table 2: Gaiva Historical Rock Sample Results**

Easting	Northing	Location	Sample	Type	Au (g/t)	Ag (g/t)	Pb (ppm)	Cu (ppm)	Zn (ppm)	Sb (ppm)	Description
507528	9054969	Ongimolo ck	413121	RF	4.88	140	9700	280	6000	398	Massive pyrite, galena sphalerite in quartz with yellowish clay coating
507526	9054968	Ongimolo ck	413122	RF	8.88	57.2	6800	15	29	69	Weak clay altered black massive sulphide with quartz vugs after sulphur leaching
507528	9054968	Ongimolo ck	413123	RF	0.58	83.3	10200	70	194	143	Yellowish clay from oxidation of sulphides Zn??, Pb??
507543	9054913	Ongimolo ck	413124	RF	3.53	19.8	173	65	56000	80	Quartz with pyrite, chalcopyrite, sphalerite, galena and massive sulphide fragments in quartz
507544	9054911	Ongimolo ck	413125	RF	NA	NA	NA	NA	NA	NA	Vuggy quartz with yellowish clay, massive sulphide fragments, disseminated and veinlet sphalerite, galena, chalcopyrite, pyrite
507558	9054854	Ongimolo ck	413126	RF	3.09	103	7300	88	1260	434	Vuggy quartz with yellowish clay, massive sulphide fragments, disseminated and veinlet sphalerite, galena, chalcopyrite, pyrite
507597	9054855	Ongimolo ck	413127	RF	0.13	1.5	30	165	220	28	Hornblende diorite with quartz pyrite, galena, sphalerite veinlets and disseminated
507610	9054853	Ongimolo ck	413126	RF	0.13	4.5	33	164	76	30	Disseminated pyrite chlorite sericite altered hornblende diorite

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 and Mineral Resources is based on 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.

**TML Exploration Licence Information.**

Licence Number	Type of Licence	Tolu Ownership	Sub-blocks	Area * (km <sup>2</sup> )	Grant Date	Expiry Date
ML104	Mining Lease	100%	N/A	7.71	01-Sep-21	28-Aug-32
EL2531	Exploration Licence	100%	32.73	111.61	25-Feb-19	24-Feb-25
EL2385	Exploration Licence	100%	58	197.78	26-May-16	25-May22
EL2535	Exploration Licence	100%	8	27.30	26-Jan-22	25-Jan24
EL2536	Exploration Licence	100%	30	102.30	26-Jan-22	25-Jan-24
EL2538	Exploration Licence	100%	14	47.70	26-Jan22	25-Jan24
EL2539	Exploration Licence	100%	29	98.89	26-Jan22	25-Jan-24
EL2723	Exploration Licence	100%	108	368.28	8-Nov22	07-Nov-24
EL2662	Exploration Licence	100%	30	102.30	26-Oct-21	25-Oct-23
EL2780	Exploration Licence	100%	116	392.33	N/A	N/A
<b>Total</b>			<b>425.73</b>	<b>1,456.2</b>		

\*1 sub-block approximately 3.41 sq.km

**Notes:**

The PNG Mining Act-1992 stipulates that Exploration Licences (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. EL2385, EL2535, EL2536, EL2538, EL2539 and EL2662 are currently subject to an extension renewal process. The tenements remain in force until determinations are made by the Mining Advisory Council.

The Warden Hearing for ELA2780 was completed on 6 March 2024

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## 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>No drilling results have been reported in this announcement.</li> <li>Historical trench and rock samples were collected, bagged and labelled onsite, and transported to the field Camp by or under the supervision of a geologist or experienced field assistant.</li> <li>Historic exploration results are quoted from historical Annual and internal MRA reports.</li> <li>Historical data are considered reliable and of sufficient quality based on a review of available historical reports and literature.</li> <li>Material aspects of the mineralisation are noted in the text of the document.</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 results have been reported in this announcement.</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 results have been reported in this announcement.</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 results have been reported in this announcement.</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> <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>Standard laboratory procedures of drying, crushing, splitting and pulverizing is practiced by certified labs.</li> <li>No drilling results have been reported in this announcement.</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</li> </ul>	<ul style="list-style-type: none"> <li>Historical TGM assaying were appropriate. Rock samples were crushed and prepared as 20g samples for assaying for a partial aqua regia digest.</li> <li>Acceptable levels of accuracy were obtained in the assaying results of Au 0.01 ppm, Cu 1 ppb &amp; Ag 0.01 ppm.</li> <li>Historical TGM duplicates have not been reported.</li> <li>No drilling results have been reported in this announcement.</li> <li>Airborne MT geophysical surveying was undertaken by</li> </ul>

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Criteria	JORC Code explanation	Commentary
	<i>acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i>	Expert Geophysics with a 200m line spacing. Conductivities were modelled using proprietary 2.5D modelling software and results supplied as voxel 3D grids, 100m depth slices and cross-sections along each survey line. Sample spacing is approximately every 2m with MobileMT (Mobile Magneto Tellurics) bird height of 60-70m. Airborne magnetics is also collected with a Geometrics G822A Cesium Magnetometer.
<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>All assay data is stored as at the MRA library in digital PDF formats. The nature and style of sampling and mineralisation at this stage of the exploration project is considered adequate.</li> <li>No drilling results have been reported in this announcement.</li> </ul>
<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>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> <li>No drilling results have been reported in this announcement.</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 sample spacing.</li> <li>Rock sample locations and hence data spacing and distribution is not yet sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedures.</li> <li>Sample compositing was not applied.</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>Sample intervals are selected based upon observed geological features and the strike of the narrow quartz veins.</li> <li>The Author is not aware of any sampling bias.</li> <li>No drilling results have been reported in this announcement.</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 site is remote and controlled. Rock samples are stored on-site in a remote location. Site employees transport samples to the analytical lab.</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>TGM Sampling and assay methods are recorded in historical reports from 1974 to 2017.</li> <li>No audits or reviews of sampling techniques and data have been performed.</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>Tolu Minerals Limited have a 100% ownership of Frontier Copper (PNG) Limited, which hold 100% title to Exploration Licence EL2531 and Mining Lease ML104. There are no joint ventures or partnerships in place. Frontier Copper PNG Ltd has IPA company registration number 1-48997.</li> <li>There are no known impediments to operating in ML104, EL2531 or any other tenements held by Tolu. Tenements are granted by the Minister of Mines for a period of two years and security is governed by the PNG Mining Act 1992 and Regulation.</li> <li>EL2531 was renewed for a further two-year term to 24<sup>th</sup> February 2025.</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>Surrounding tenements were initially stream sampled by Kennecott in the 1960's afterwards by CRAE who completed both steam sediment sampling and rock chip sampling.</li> <li>Newmont 1985-1988 discovered the Tolukuma vein and completed costean and soil sampling and diamond drill holes testing the NW-SE Taula Vein. Newmont completed resource drilling and mine feasibility studies. From 1989-1992 Newmont completed 2<sup>nd</sup> phase drilling.</li> <li>Dome Resources purchased the Exploration licenses from Newmont in 1992 and completed feasibility studies in the ML104, granted in 1994, with first gold poured in December 1995.</li> <li>In 2000, Durban Roodepoort Deep purchased Dome Resources and took over all its interests in PNG. TGM's work programs (now 100% DRD included trench sampling and mapping. Work commenced at Saki in 2002 with a programme of extensive trench sampling and mapping and drilling at the Kunda prospect both inside ML104 and within the current EL2531.</li> <li>Petromin PNG Holdings acquired 100% of the Tolukuma projects including ML104 from Emperor Mines in 2008. Singapore company Asidokona purchased Tolukuma Gold Mines Ltd from Petromin (PNG Government) in November 2015.</li> <li>The Tolukuma gold mine was held under the control of the MRA and the appointed liquidator/administrator until 100% ownership of ML104 was granted to Tolu Minerals Ltd 3<sup>rd</sup> October 2022 along with its associated assets and mine infrastructure to re-establish mining operations and re-commence exploration and resource drilling.</li> <li>EL2531 was acquired by Frontier Resources Ltd, now Lanthanein Resources Ltd, on a first application basis when it was offered by the MRA. Exploration work by Frontier included surface trench and rock sampling.</li> <li>Tolu Minerals Limited secured binding rights to EL2531 through its acquisition of Frontier Copper PNG Limited, which was previously a wholly owned subsidiary of ASX listed, Lanthanein Resources Limited.</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>The Tolukuma group of vein systems are intrusive related epithermal Au-Ag quartz veins hosted within rocks of the Pliocene Mt Cameron Volcanic Complex. The Kagi Metamorphics comprise the basement rocks in the Tolukuma area. A sequence of subaerial volcanics of Middle Miocene to Early Pliocene age unconformably overlies the metamorphic basement rocks. Small stocks, 1-5km across, of diorite, porphyritic microdiorite, hornblende-feldspar porphyry, monzonite and granodiorite have been mapped intruding the Kagi Metamorphics and Mt. Davidson Volcanics in the licence areas.</li> </ul>

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<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 results have been reported in this announcement.</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.</li> <li>Cut-off grades are NOT stated.</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 rock samples is moderately well understood.</li> <li>No drilling results have been reported in this announcement.</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 rock samples are included where relevant.</li> </ul>
<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 sample results has occurred in historical reports.</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>All meaningful exploration data has been included to date in this and previous ASX announcements.</li> <li>Final Airborne MT modelling of results of Phase 1 area are currently being undertaken and final results will be interpreted and announced when completed.</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 aimed at completing airborne Magneto-Telluric surveying (Airborne Mobile MT) to assist in testing for lateral extensions of known veins and interpreted porphyry mineralisation at depth.</li> <li>Follow-up drilling is aimed at testing Airborne geophysical MT anomalies to define gold and copper mineralisation at depth.</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>