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ASX: FNT

ASX Limited
Market Announcements Platform
27 January 2021

ACTIVITIES REPORT – QUARTER ENDED 31ST DECEMBER 2020

- Initial results from sampling at Kimono show significant gold grades of **4m @ 4.78 g/t Au** including **1m @ 15.5 g/t Au** along the newly discovered Tassy quartz vein. Trench results 300 metres further downstream show **10m @ 0.95 g/t Au** including **3m @ 2.31 g/t Au**. Sampling indicates an extension of the Tassy vein to over a 1km strike length.
- Over twenty soil sampling anomalies reflect undiscovered vein systems throughout the Kimono area that require follow-up trench sampling.
- During a ten day field trip to the Saki prospect, geologists completed a geotechnical review of proposed drill pads, hydro power site and road to the Tolukuma mine.
- An independent review of EL2531 shows five regional targets selected for follow-up and which will be retained as part of the tenement reduction required for renewal.
- Four prospect areas east of the Tolukuma mine are interpreted as high sulphidation copper-gold porphyry style targets including the Diakoku gossanous structure where trench results show a gold zone that averaged **2.62 g/t Au and 250 ppm Cu over 9.0 metres**.

Frontier Resources Limited (**Frontier** or the **Company**) is focussed on high grade quartz vein gold exploration at its 100% owned tenement that completely surrounds the Tolukuma Mining Lease ML104, approximately 100km north of the PNG National Capital of Port Moresby.

During the quarter the Company released stage 1 results from its mapping and sampling program at the Kimono prospect located on the eastern boundary of the Mining Lease 104 (Figure 1), where historical exploration and drilling defined gold mineralised zones trending over 4.0 km in length through to the south at the Kunda North and Seri-Seri vein systems.

Significant results include (refer to ASX Announcement dated 19 November 2020):

- **4m @ 4.49 g/t Au including 1.0m @ 15.5 g/t Au** in Trench KT-06 on the Tassy Vein;
- **0.55 g/t Au** in rock outcrop sample 30277 14m north of Trench KT-06 on the Tassy Vein;
- **10m @ 0.95 g/t Au including 3.0m @ 2.31 g/t Au** in Trench KC-17 in Holsiga Creek;
- **1.15 g/t Au** in rock outcrop sample 30269 near Trench KC-17 in Holsiga Creek;
- **0.2m @ 0.39g/t Au** in Trench KT-08 in Fala Creek; and
- **1.42 g/t Au** in rock float sample 30248 in Fala Creek 100m upstream from Trench KT-08.

Anomalous gold in soil samples (refer to ASX Announcement dated 17 December 2020) and alteration from geological mapping indicate the Tassy Vein extends to over a **1km strike length**. Anomalous trace pathfinder elements As, Ba, Mo and Sb help in tracing sub-surface gold mineralised veins along the Kimono Central Vein where historical drillhole KI02 was encountered, confirming a 200m zone of vein continuity.



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At Kimono South, anomalous gold and pathfinder elements are continuous over a 360m zone along the projected Dudu Vein. The soil line is located on a low-lying ridge where the field sampling crew reported intersecting fragmented quartz veins and clay alteration.

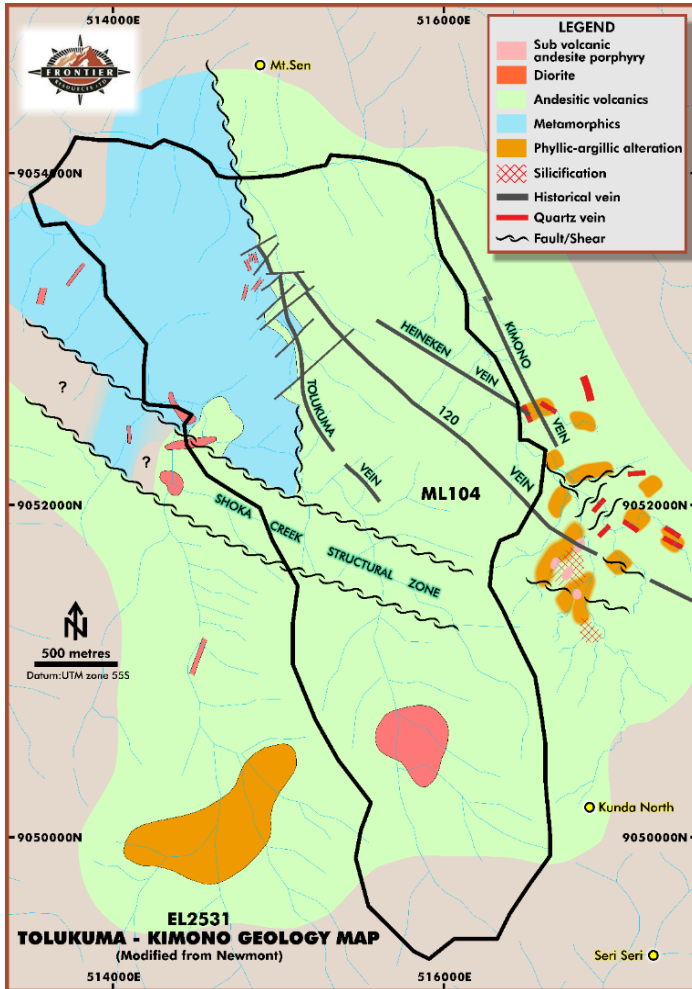


Figure 1: Kimono Creek Geology Mapping

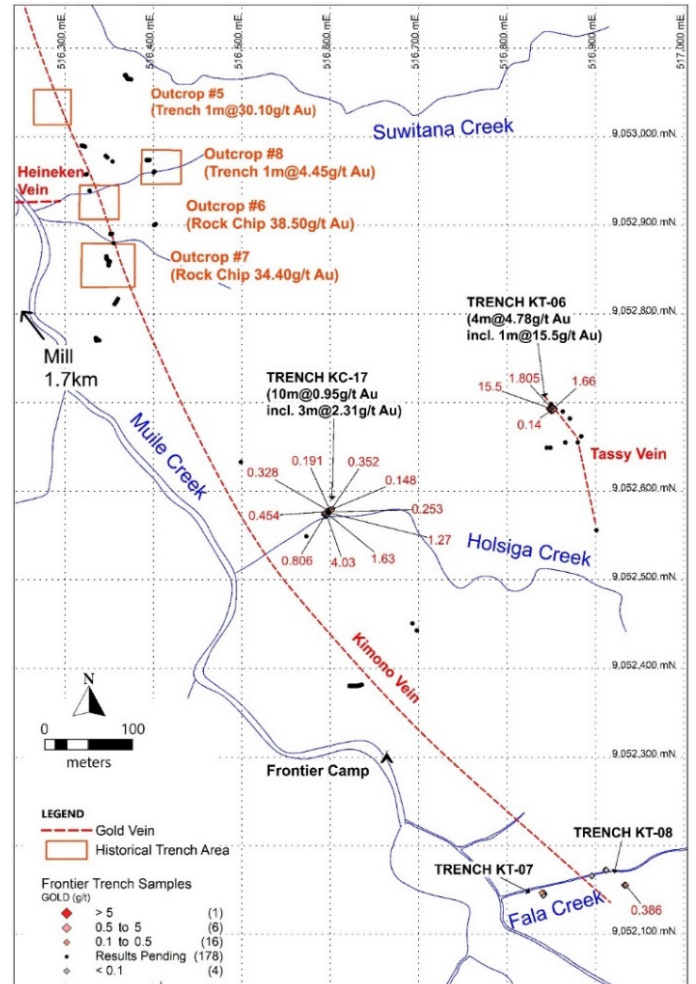


Figure 2: Kimono Trench Sampling Results

Saki Project:

Two senior geologists mobilised to the Saki gold prospect 3 km east of the Tolukuma minesite (Figure 3) during December 2020 and completed the following activities as part of MRA required work commitments:

- Geotechnical review of historically proposed drill pads (Figure 4);
- Evaluate a historically proposed hydro-electric power plant site (Figure 4);
- Geotechnical ground inspection of a proposed road from the minesite (Figure 3);
- Water samples for quality testing from an number of sites for regular monitoring (Figure 4);
- Visit proposed trench sampling sites (Figure 5);
- Geological logging of historical Kimono drill holes;
- Density readings of selected Saki drill core as required for a future JORC Resource; and
- Collect historical Saki drill core samples for metallurgical analysis through Intertek.



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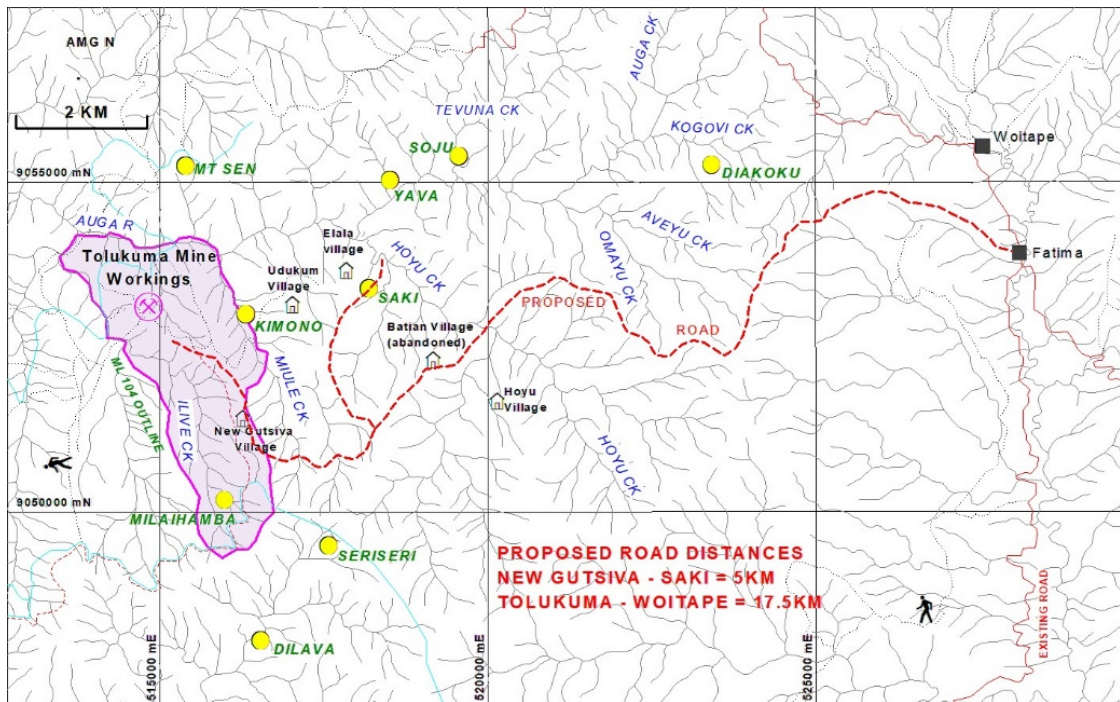


Figure 3: Proposed Road from Saki to the Mine Site

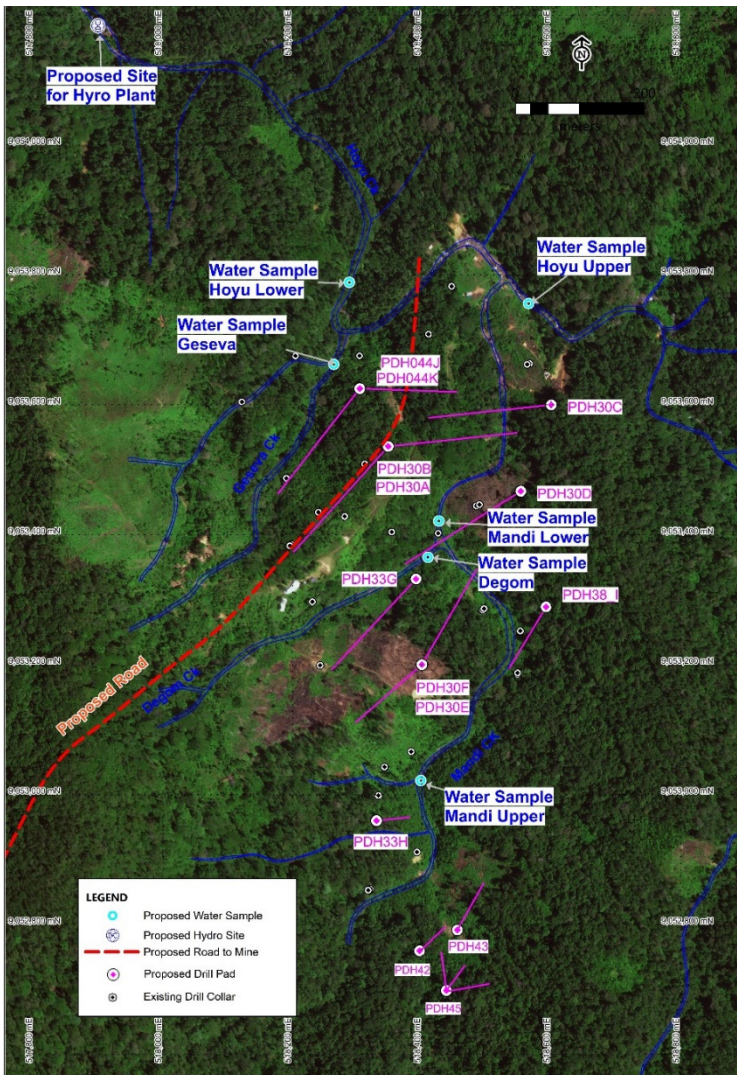


Figure 4: Proposed Drill Pads and Water Testing Sites

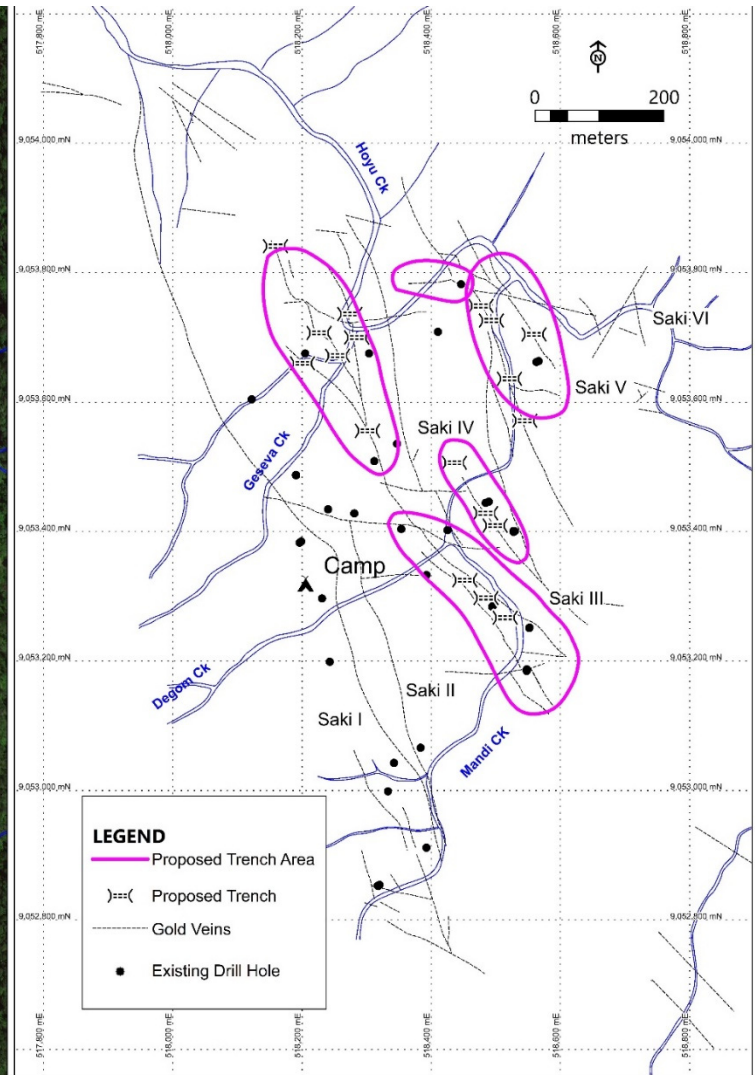


Figure 5: Proposed Trench Sites



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EL2531 Regional Targets

Five regional target areas (Figure 6) have been recommended for further follow-up fieldwork in an independent geologist's report. These target areas are **in addition** to other high priority surrounding ML104. The analysis of all available historical regional data to date within EL2531 has been analysed to ensure the most valuable ground is retained as part of a tenement size reduction required for the tenement renewal process.

In summary (refer to ASX Announcement dated 2 November 2020):

- 1) Most gold prospects cluster around the magnetic "Tolukuma Magnetic Intrusive Complex", believed to be the feeder system and source of the **gold-bearing fluids** at and around the Tolukuma mine;
- 2) Discrete "Spot" geophysical Thorium radiometric highs are possibly intrusive related;
- 3) Potassium/Thorium (K/Th) ratio highs are interpreted to represent zones of shoshonitic volcanics and/or intrusives, which are associated with most of the large gold deposits in PNG;
- 4) NNW-trending structures associated with the known mineralisation may be reactivation of older basement structures; and
- 5) Gold-anomalous rock chip samples at the Evese Prospect are associated with coincident magnetic & (K/Th) anomalies and linear/curvilinear structures that may define a volcanic-intrusive centre.

Four prospect areas east of the Tolukuma mine are interpreted as high sulphidation copper-gold porphyry style targets requiring follow-up fieldwork (refer to ASX Announcement dated 14 October 2020):

- **Diakoku** was discovered by Newmont in 1989 while following up anomalous BCL drainage anomalies from 1988 in the Auga River headwaters region. Follow-up of a spot 0.34 g/t Au soil anomaly resulted in discovery of a 1 to 10 m wide "discontinuous gossanous structure" from which trench results included **3.6m @ 2.95g/t Au, including 1.6m @ 5.2g/t Au**. Trench sampling by TGM exposed a 9.0m wide vuggy silicified zone that averaged **2.62 g/t Au and 250 ppm Cu over 9.0m**. TGM interpreted the Diakoku structure as high sulphidation style copper-gold mineralisation possibly located above a porphyry system.
- **The Evese Prospect** occurs 12km SE of the Tolukuma mine site (Figure 2) where historical fieldwork included 23km of creek geological mapping and 52 rock chip samples which were uniformly anomalous in gold between **0.1 & 0.42 g/t Au**. Results of sampling and mapping indicate Evese to be a volcanic centre and further fieldwork including soil sampling has been recommended to Frontier by an independent geological consultant.
- **The Hoyu Prospect** is located 6km east of the Tolukuma mine site and part of a wider area of alteration and weakly anomalous geochemistry, encompassing the adjacent Ijav Prospect to the SE, that TGM regarded as a high sulphidation system porphyry target. The creek geology indicates a sub-volcanic porphyry copper-gold environment.
- **The Ijav Prospect** is 9km southeast of the Tolukuma mine site discovered by Newmont during 1987-91. From the 39 rock samples taken by Newmont, only one contained >0.1 g/t Au (0.27 g/t Au in a float) and six had anomalous arsenic values. TGM's rock chip sampling returned best results of **1.11 g/t and 0.59 g/t Au** in a very hard fine grained metasediment. The presence of alunite supports the concept of a high sulphidation system along the Ijav Fault and follow up soil sampling is recommended to Frontier by an independent geological consultant.



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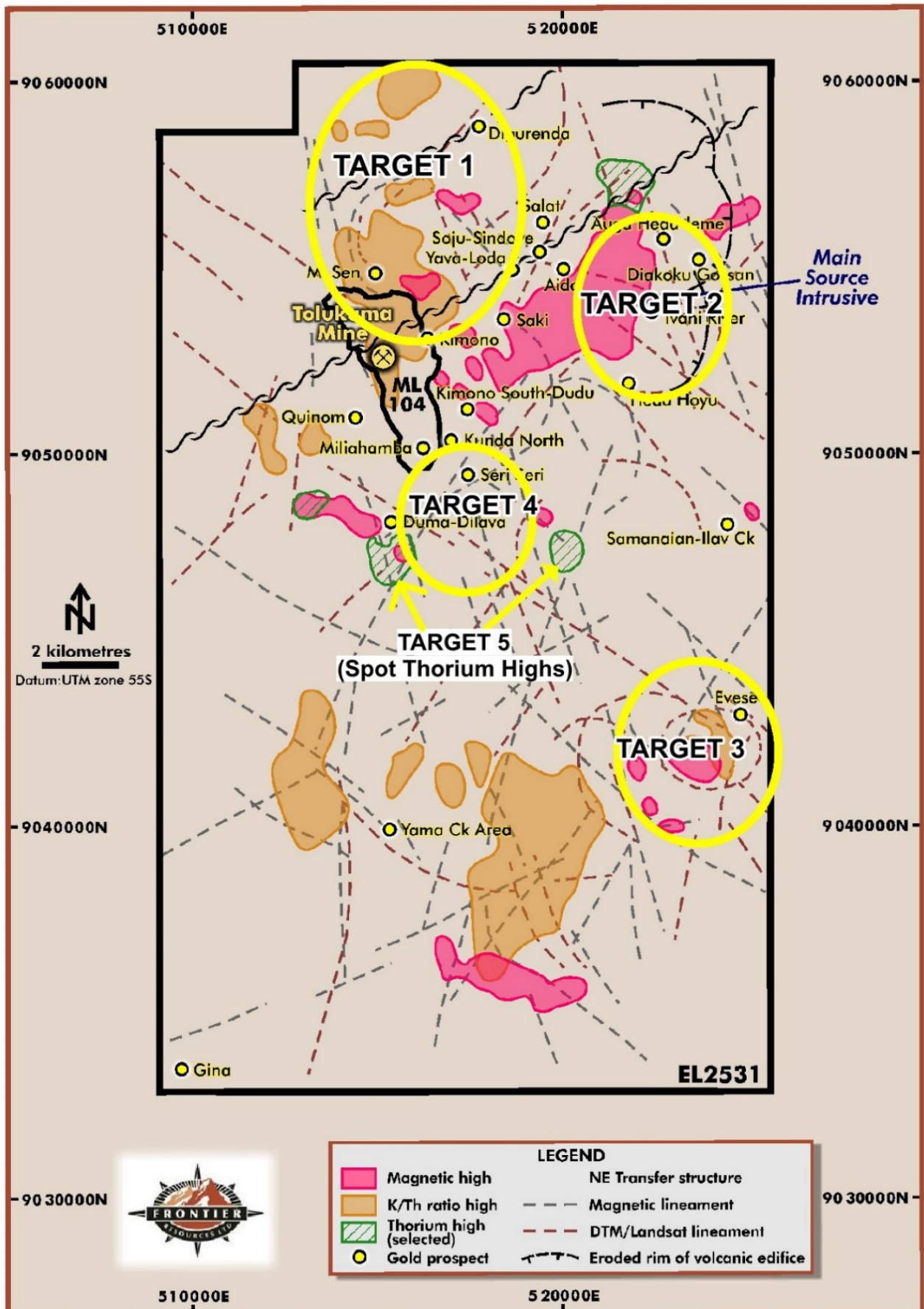


Figure 6: EL2531 Regional Target Areas



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Next steps on the existing project portfolio:

- Trench and rock sampling along the Kimono and Tassy veins to define drill targets.
- Regional geological mapping to fulfill final MRA Work Commitments on EL2531.
- The PNG Mineral Resources Authority (MRA) have approved a variation to the EL2531 Work Program commitments that will better enable Frontier to advance the Saki gold project. An application of tenement renewal for a further two year term on has been lodged and a Warden's landowner hearing is scheduled 10th March 2021 as part of the renewal process.
- Seek strategic partners to more rapidly advance gold prospect within EL2531.
- Continue to assess additional project opportunities that fit within the Company strategy.

ASX Additional Information

1. ASX Listing Rule 5.3.1: Exploration and Evaluation Expenditure during the quarter was \$148,000. Full details of exploration activity during the December quarter are set out in this report.
2. ASX Listing Rule 5.3.2: There was no substantive mining production and development activities during the Quarter.
3. ASX Listing Rule 5.3.5: Payment to related parties of the Company and their associates during the Quarter: \$57,375. The Company advises that this relates to non-executive directors' remuneration and additional technical consulting fees. Please see the Remuneration Report in the Annual Report for further details on Directors' Remuneration.

Releases submitted to the ASX during the Quarter included:

14 October 2020	Diakoku and Eastern Prospects Show Porphyry Copper-Gold Potential
23 October 2020	Fieldcrew Completes Fieldwork Program at Kimono
2 November 2020	EL2431 Regional Targets Defined for Follow-up
19 November 2020	Significant Gold Grades at Newly Discovered Tassy Quartz Vein
10 December 2020	Mobilisation of Fieldcrew to the Saki Gold Project
17 December 2020	Sampling and Mapping Define Undiscovered Kimono Vein Systems

Authorised by the Board of Frontier Resources.

For additional information please visit our website at www.frontierresources.net.au

FRONTIER RESOURCES LTD

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 Non-Executive Director for Frontier Resources. 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.



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Frontier Resources Ltd Exploration Licence Information

Exploration Licence Number and Name	Ownership	sub-blocks	AREA (sq.km)*	Grant Date	Expiry Date
EL2531 - Tolukuma	100% Frontier Copper PNG Ltd	130	441.72	25-Feb-19	24-Feb-21
ELA2529 - Gazelle	100% Frontier Copper PNG Ltd	211	719.51	N/A	N/A
Total of Granted EL's		130	441.72		

*1 sub-block approx. 3.41 sq.km

NB: The PNG Mining Act-1992 stipulates that EL's 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 is granted. There was no change in the ownership status of the Company's tenements during the quarter.