

# REGIONAL RESOURCES PNG LTD

IPA Company No: 1-52546

EL 1611- Pagl Porphyry Cu-Au – An Emerging Untapped Potential  
Mt Hagen, Papua New Guinea

By

**Koiti Mel**

Director - P. Geologist

# EL 1611 Angiki

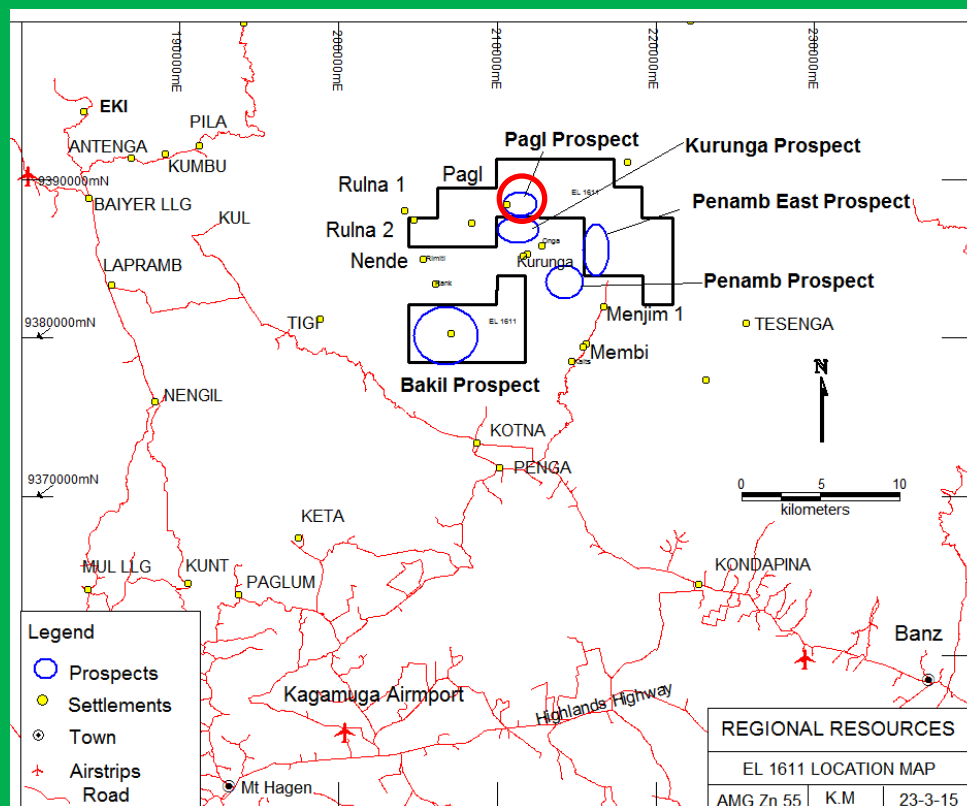
- Ownership 100 % Regional Resources PNG Ltd
- 30 sub-blocks covering 103.4 Sq.km
- Located 35 km northeast of Mt Hagen, PNG
- Renewal pending ministerial approval
- Tenement in its 4<sup>th</sup> term
- Pagl Porphyry Cu- Au Prospect is the latest discovery

# Pagl Prospect-Discovery Outcrop Highlights

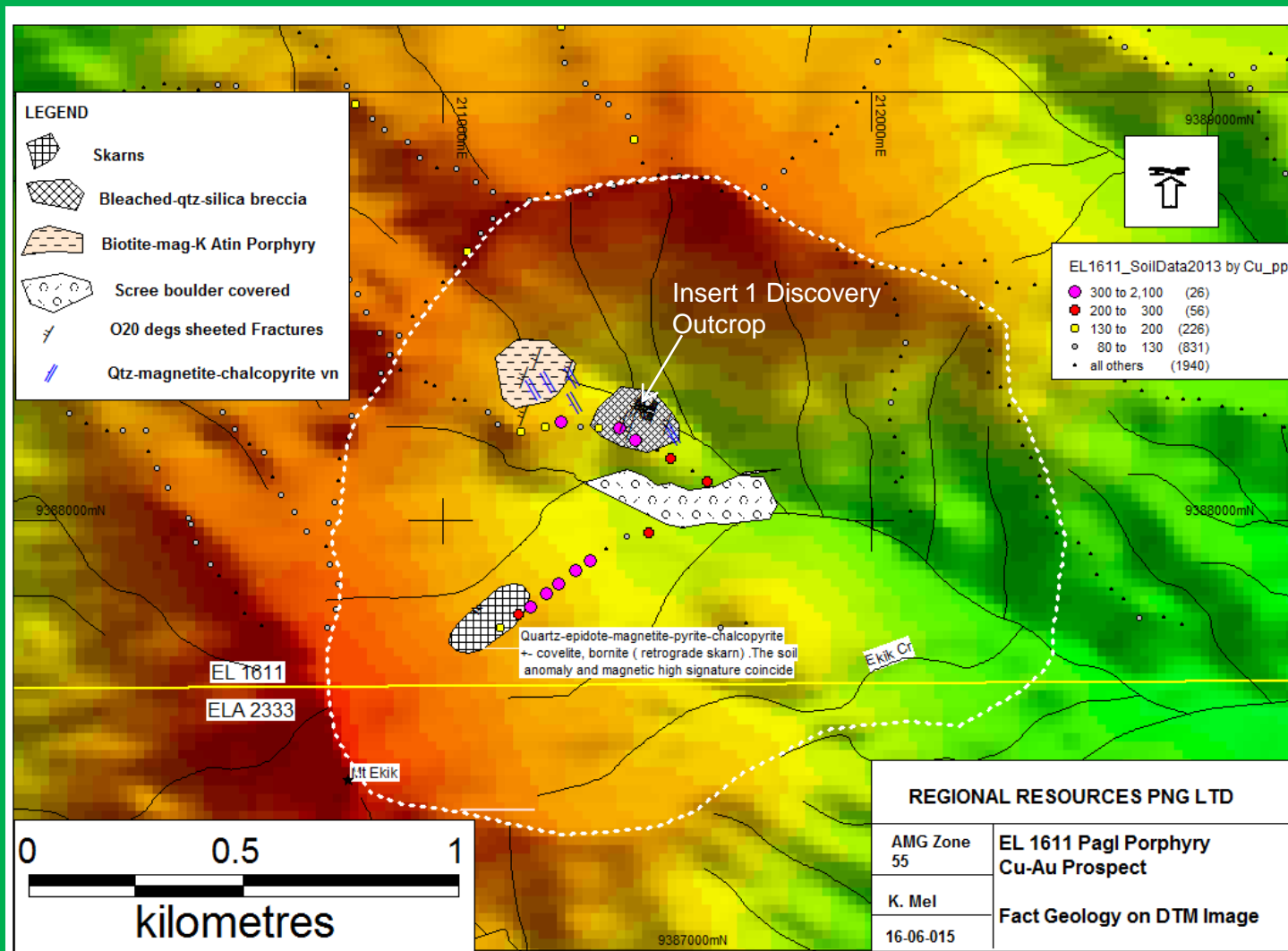
## Prospector's Grab Sample Assays

- 25 m zone @ 0.304 g/t Au, 0.784 % Cu including 5m @ 0.829 g/t Au, 1.2575 % Cu ( Sample NO: S014931 – S014935)
- S014930 RF @ 0.702 g/t Au, 5.5 g/t Au, 1.5316 % Cu, 29 ppm Mo
- S014931 OC @ 0.054 g/t Au, 0.7772 % Cu, 0.7 g/t Ag, 5 ppm Mo
- S014932 OC @ 0.454 g/t Au, 0.8873 % Cu, 23 ppm Mo
- S014933 OC @ 0.829 g/t Au, 1.2575 % Cu. 2.8 g/t Au, 5 ppm Mo
- S014934 OC @ 0.083 g/t Au, 0.3964 % Cu, 7 ppm Mo
- S014935 OC @ 0.103 g/t Au, 0.6056 % Cu, 18 ppm Mo

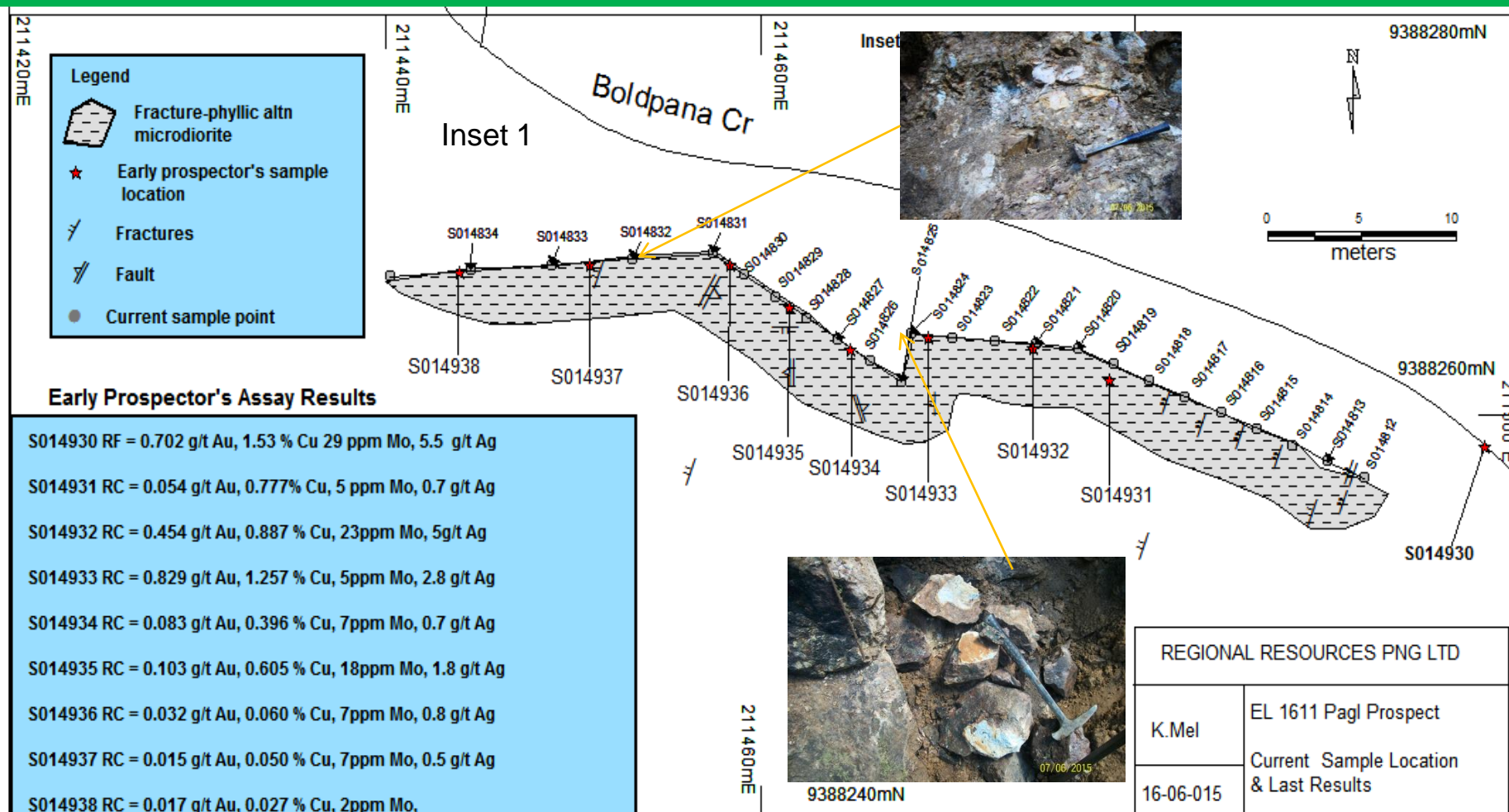
## Pagl Prospect Location & Access



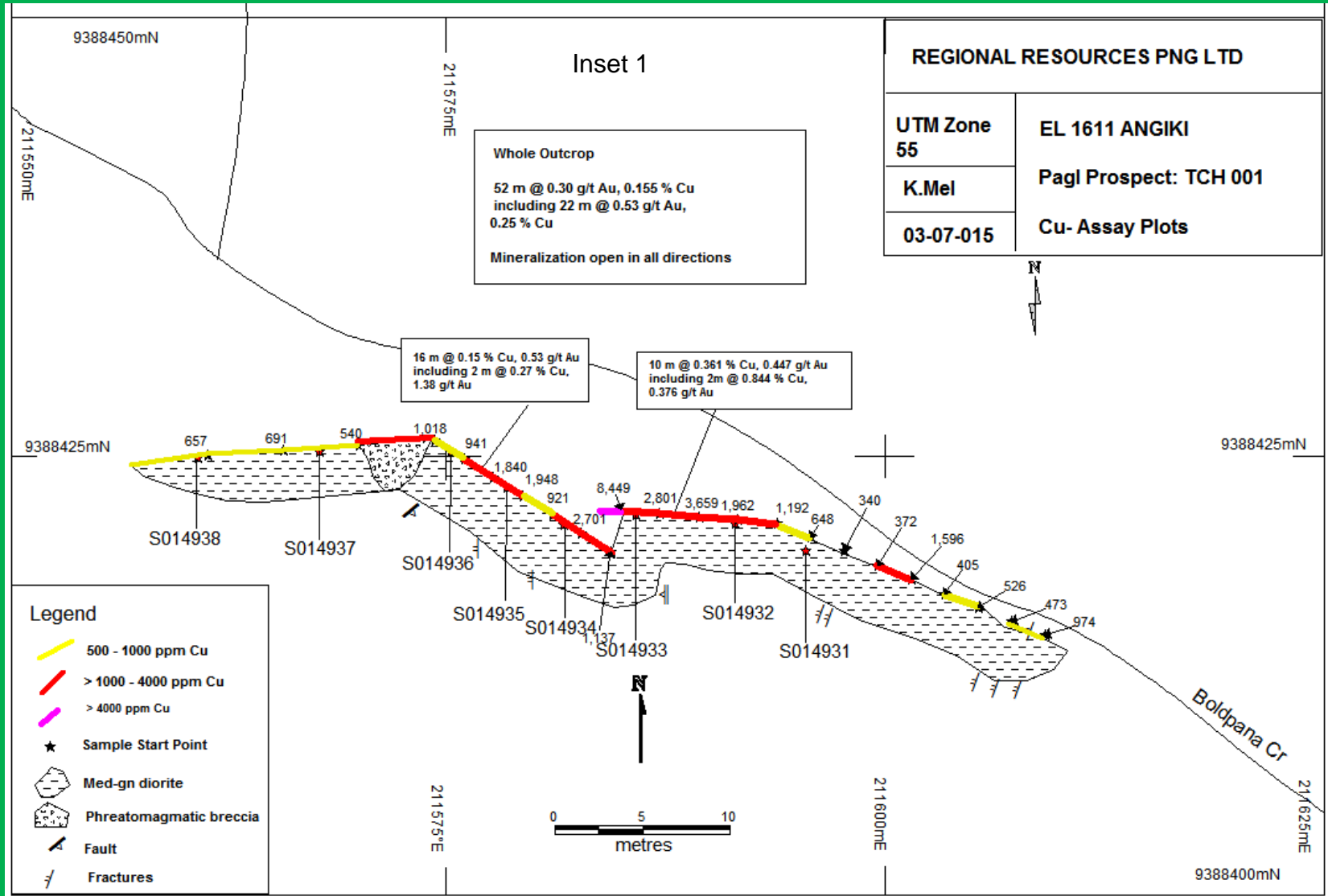
# Pagl Prospect Fact Map (Based on GPS) on DTM Image



# Discovery Outcrop – Early and Current Channel Sample location Map

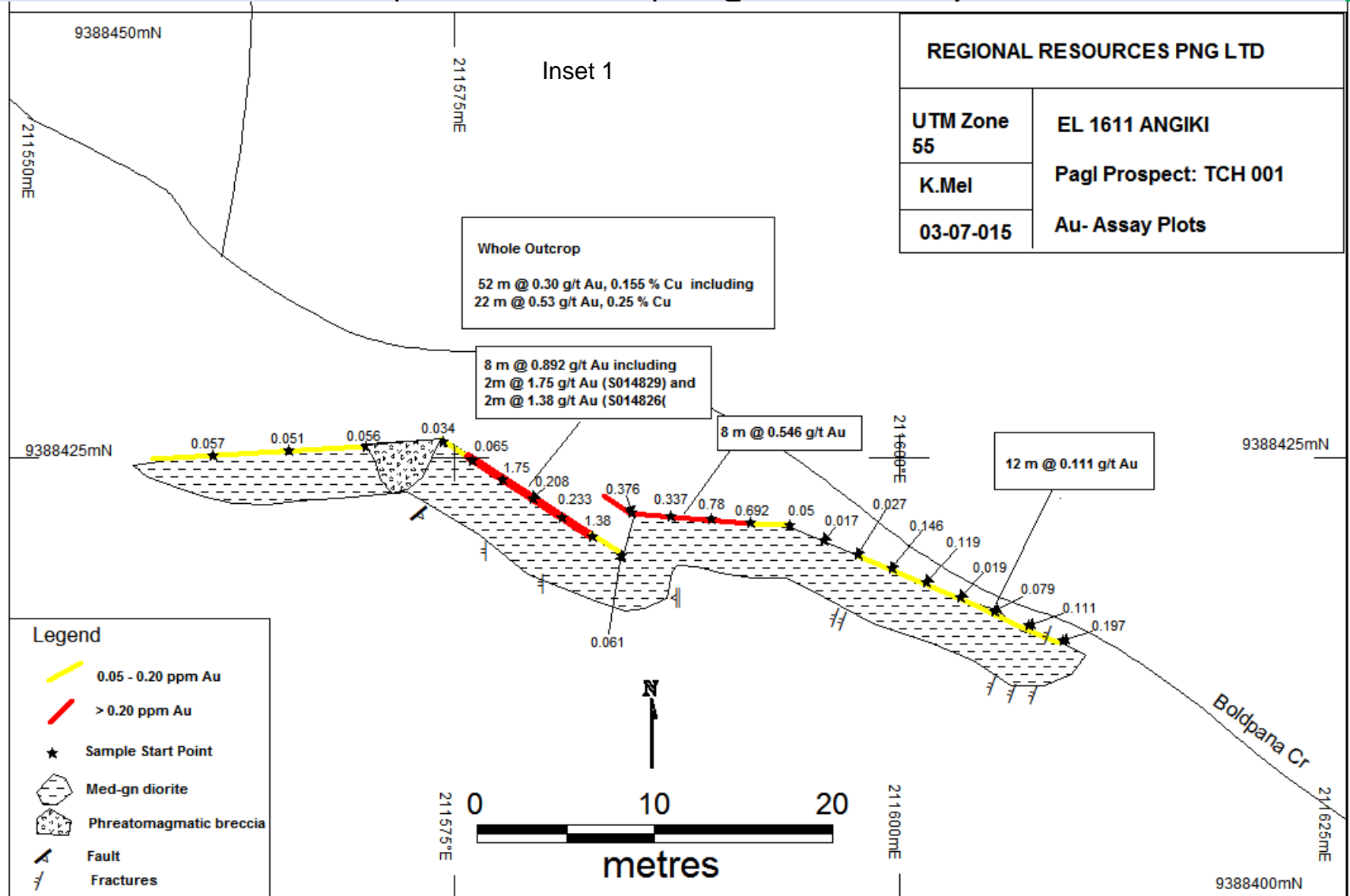


# Discovery Outcrop: Latest 2 m Channel Sample Assay Results Confirm Mineralization over 50 m (open)



# Discovery Outcrop – Au Assay Plots

( Note- last 4 samples @ 4 m intervals)



# Copper and Gold Equivalent Grades

( Current gold price USD 1156 /Oz and USD 2.54/ lb and at 100% recovery

## Trench Mineralized Intercepts

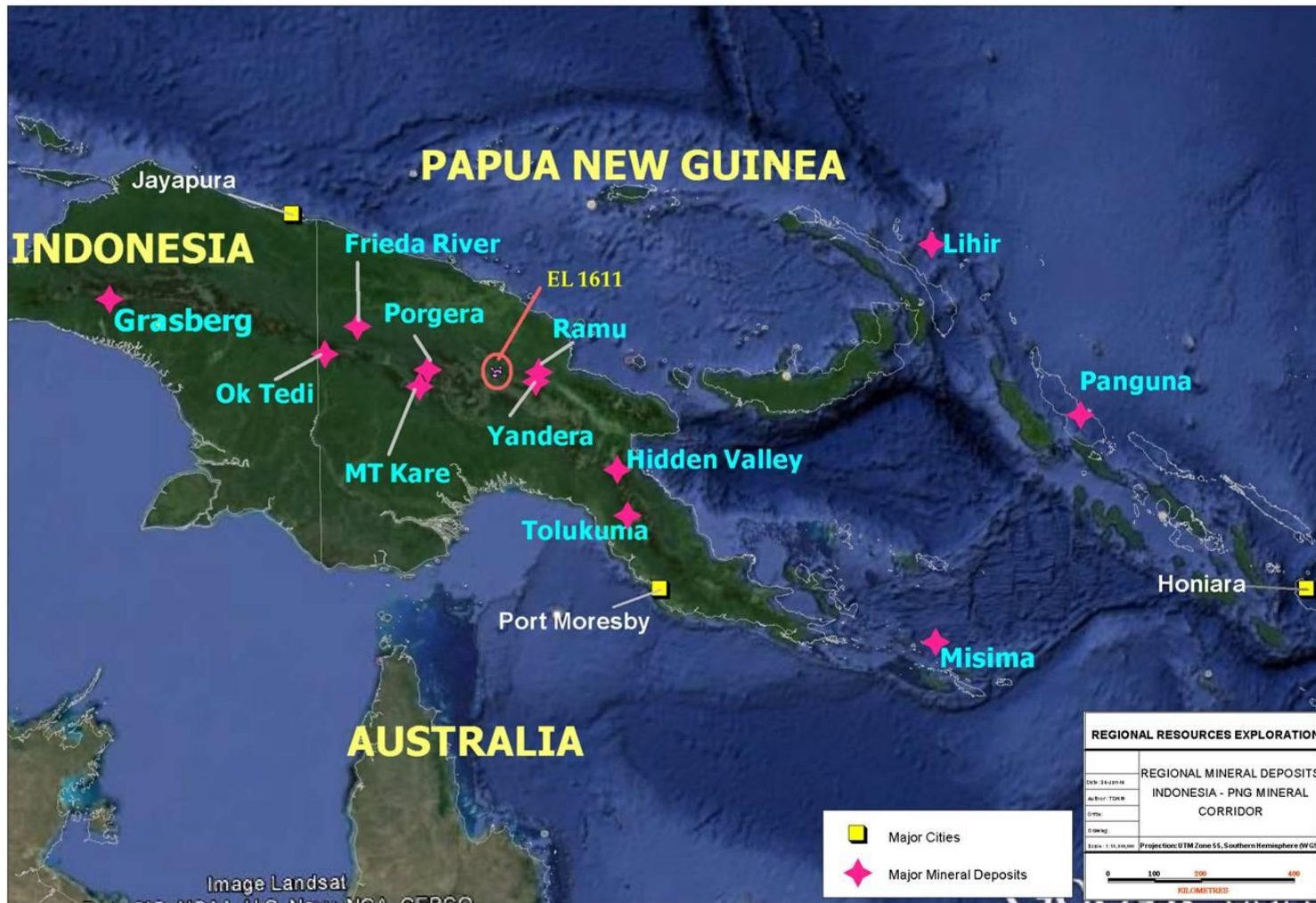
- 52 m @ 0.3 g/t Au, 0.155% Cu including;
- 10 m @ 0.447 g/t Au, 0.361 % Cu
- 12 m @ 0.616 g/t Au, 0.158 % Cu

## Au and Cu Equivalents

- 52m @ 0.55 g/t AuEq, 0.36 % CuEq,
- 10 m @ 1.02 g/t AuEq, 0.68 % CuEq
- 12m @ 0.87 g/t AuEq, 0.58 % CuEq



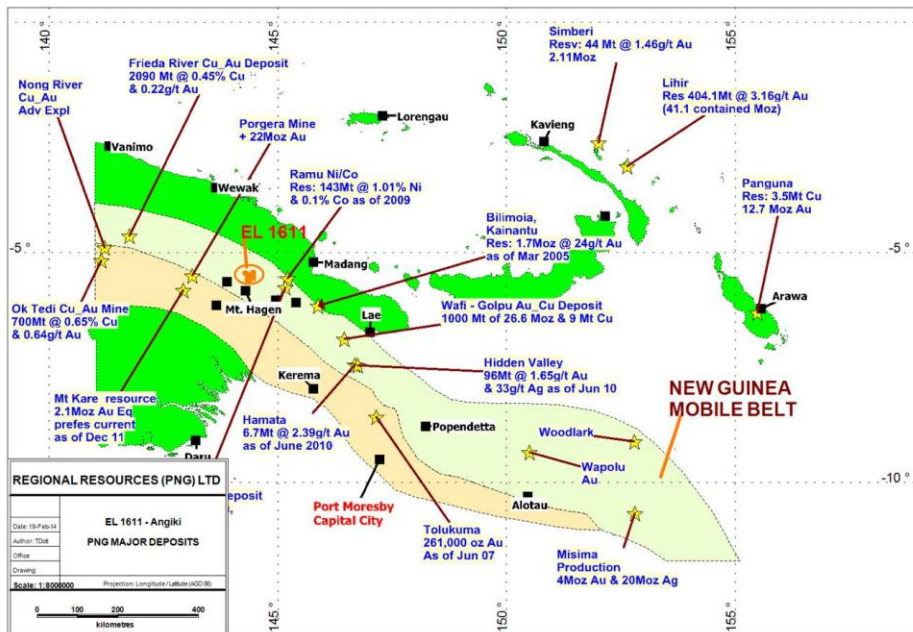
# Indonesia PNG Mineral Endowment



# EL 1611 Strategic Location Within Porphyry Cu-Au Mineral Corridor

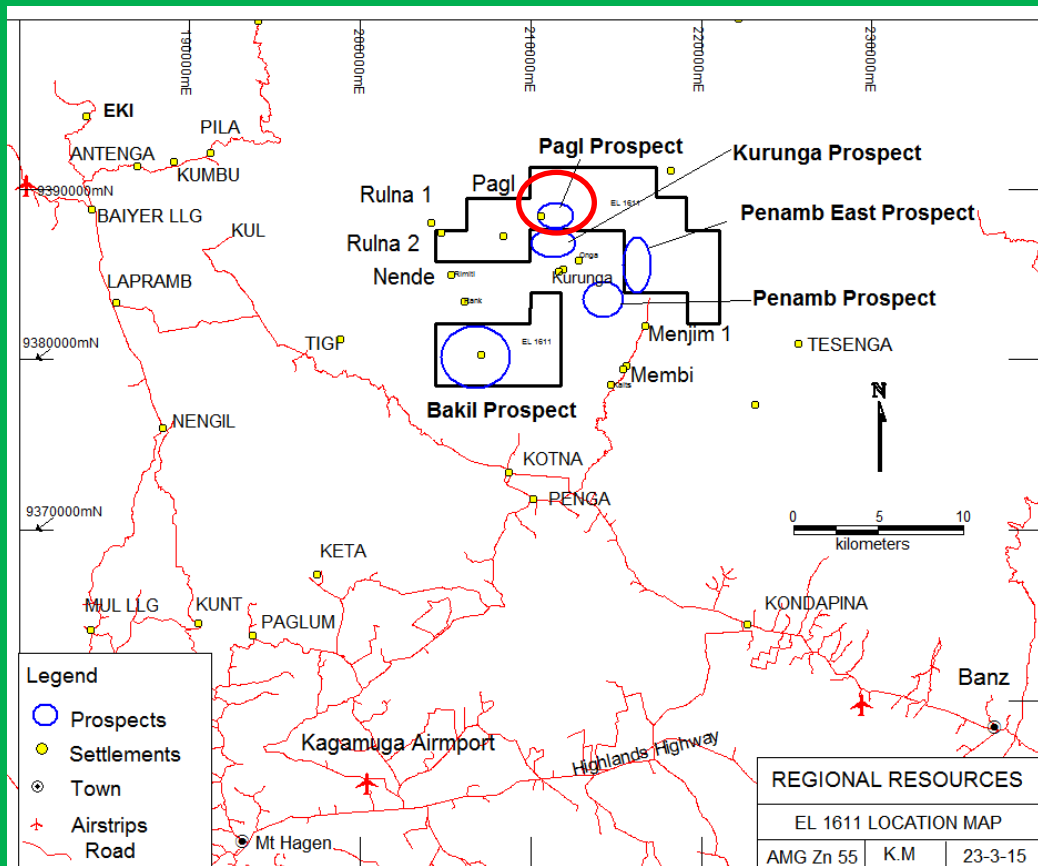
## EL 1611 With Respect to major deposits

## EL 1611 Pagl Porphyry Potential



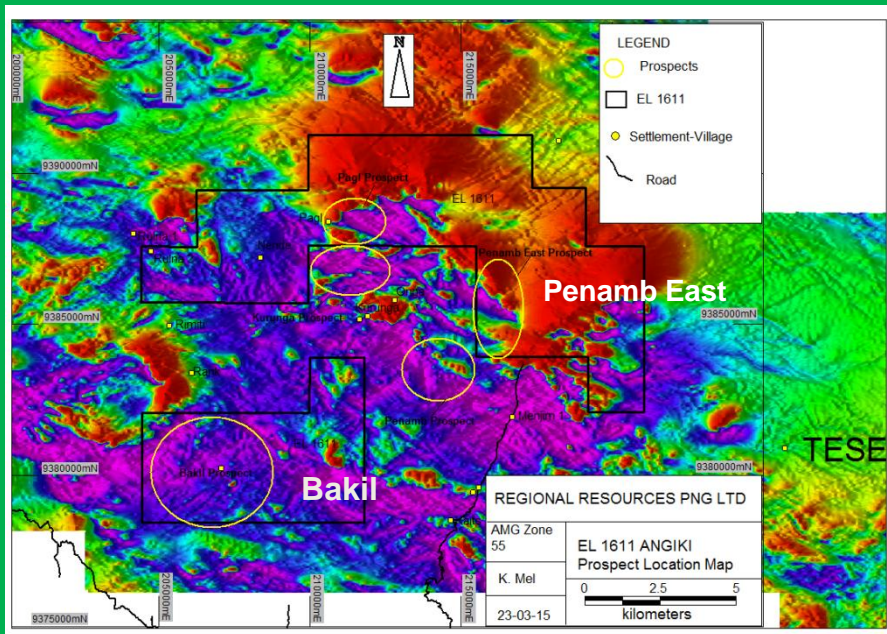
- EL 1611 Strategically located within porphyry Cu-Au mineral corridor
- Latest high grade copper gold results associated with porphyry intrusion and phreatomagmatic/diatreme breccia over a collapsed topographic feature.
- Multiphase porphyry intrusions
- Strong coincident airborne magnetic signatures
- Zoned alteration –potassic-phyllitic to argillic alteration zones

# Infrastructure, Location and Access



- Tenement located 35 km northeast of Mt Hagen, Western Highlands Province, PNG
- 15 minutes helicopter time to prospect site from Kagamuga Airport
- All weather road link to the seaport of Lae 600 km east of Mt Hagen
- All weather road link to Kotna, helicopter time reduced by half with loading point at Kona
- Kagamuga International Airport receives direct flights from Cairns, Australia
- Large unused state land available at Jimi Valley for mine infrastructure developments and Hagen –Madang Highway runs through there –construction in progress.
- Vehicular Access to 7 km from Pagl Prospect

# Historical Work



- Harmony Drilled a total of drill 6 holes
- Three drill holes in Bakil testing for porphyry copper gold- Results were inconclusive
- Three drill holes at Penamb East testing structure controlled high grad epithermal gold (up to 10 g/t Au in outcrop).
- Only ridge and spur soil sampling was done at the Pagl area
- Penamb East drill holes were collared 350 to 500 m away from the known mineralized outcrops. Intercepted alteration zones but grades were low.
- Not enough mapping done over creeks

# Pagl Prospect-Collapsed diatreme/magmatic hydrothermal breccia Featured in this presentation

(Linked to Google Earth Image)

EL1611\_SoilData2013 by Cu\_ppm

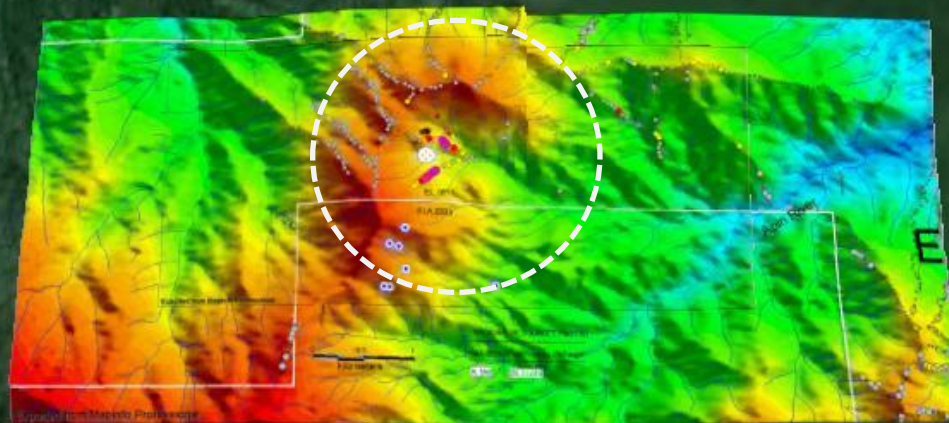
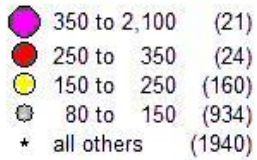
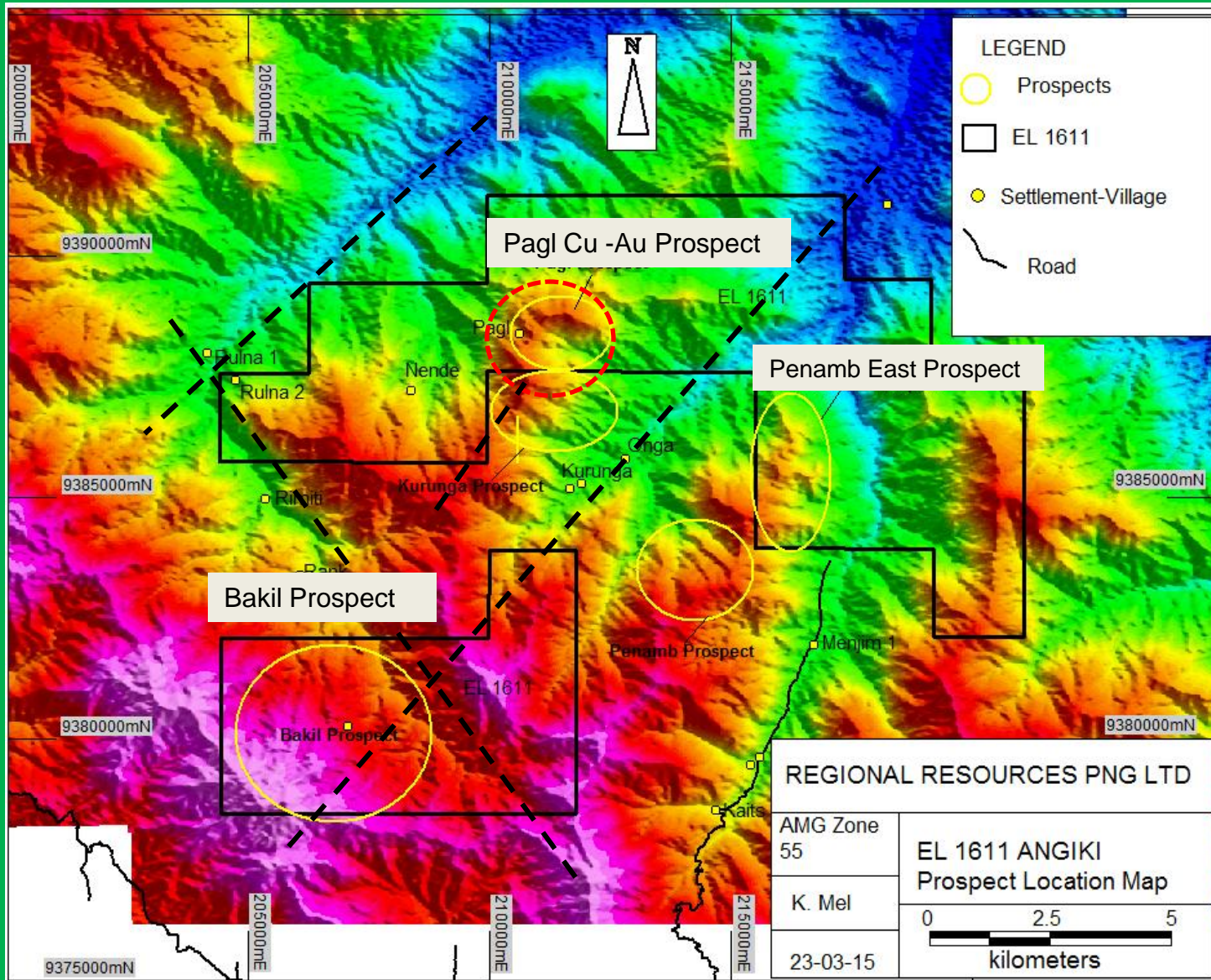


Image Landsat

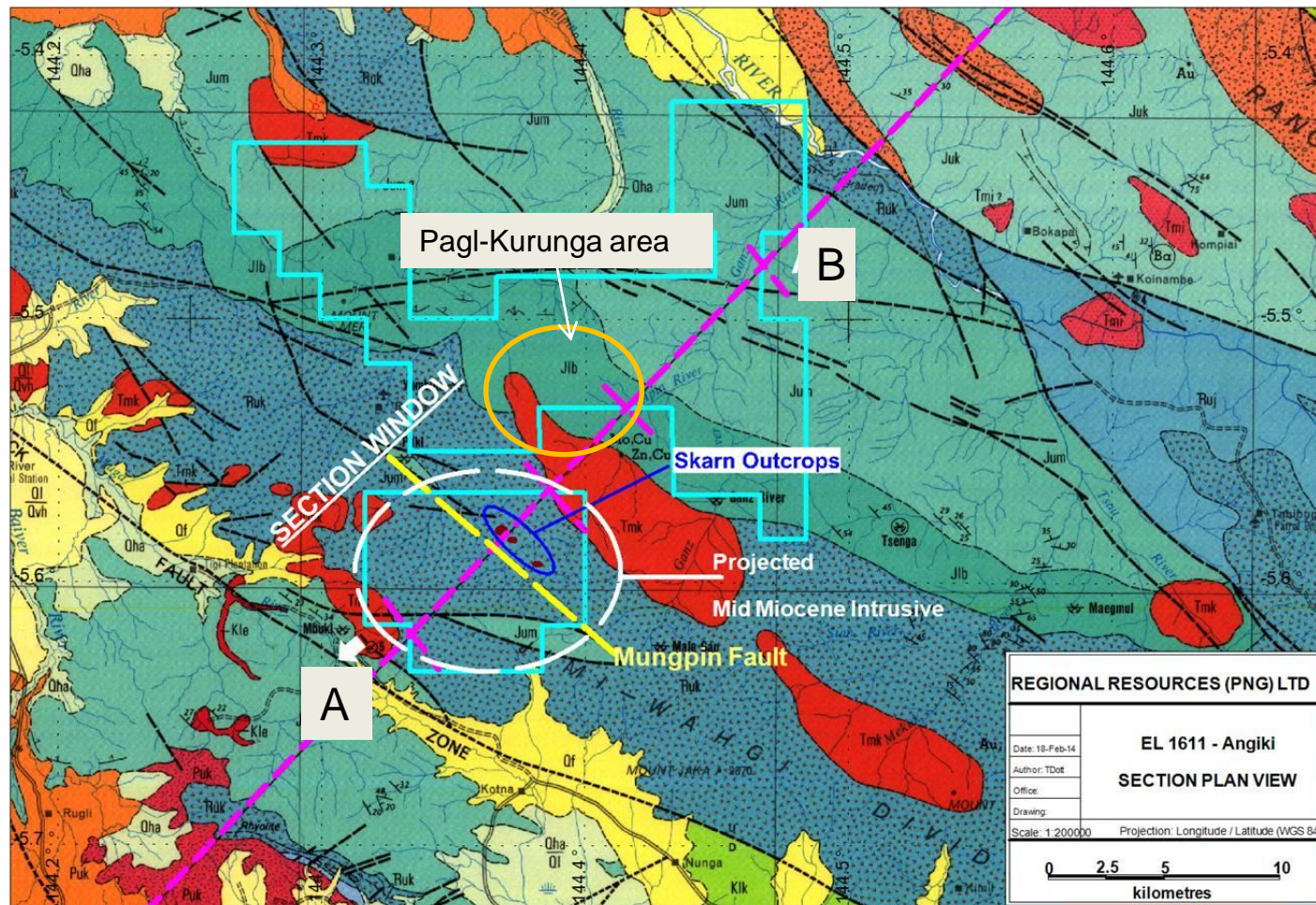
Google earth

Imagery Date: 4/10/2013 5°32'42.23" S 144°23'45.84" E elev 1376 m eye alt 16.40 km

# Local Structural Frame Work

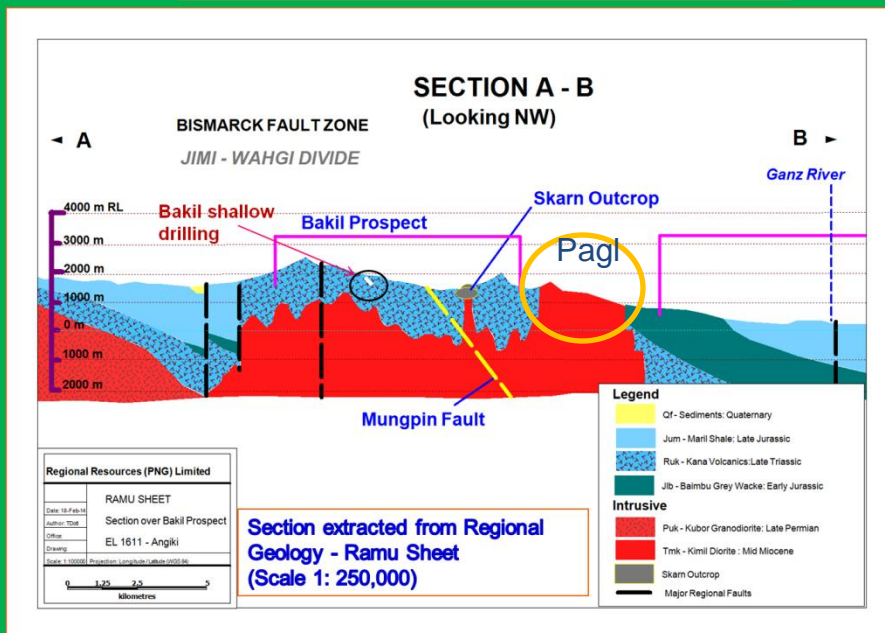


# Local Geology ( For Legends refer to cross section). El 1611 Before Last Reduction.



# Local Geology

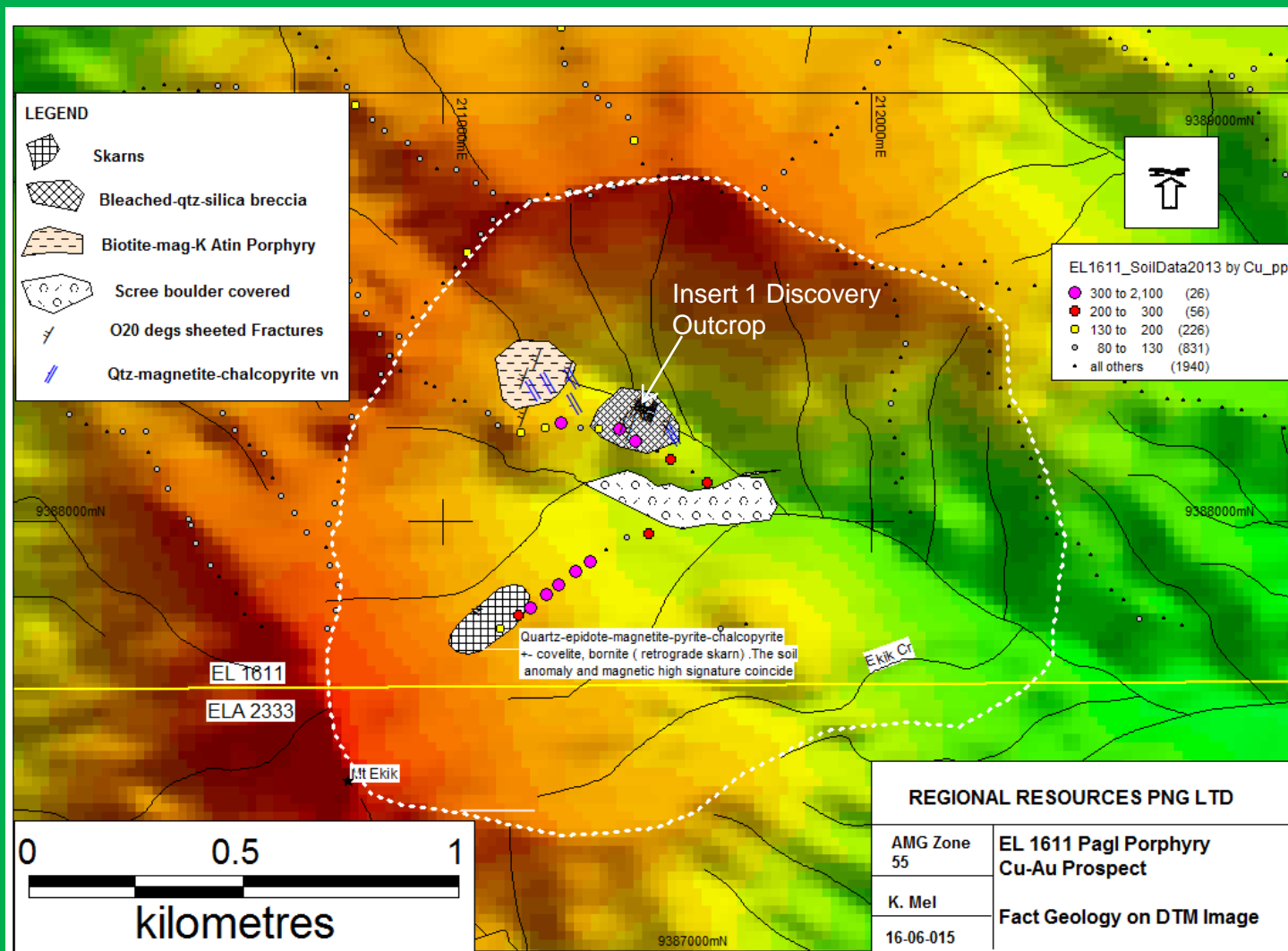
## Section A-B Through Pagl Prospect



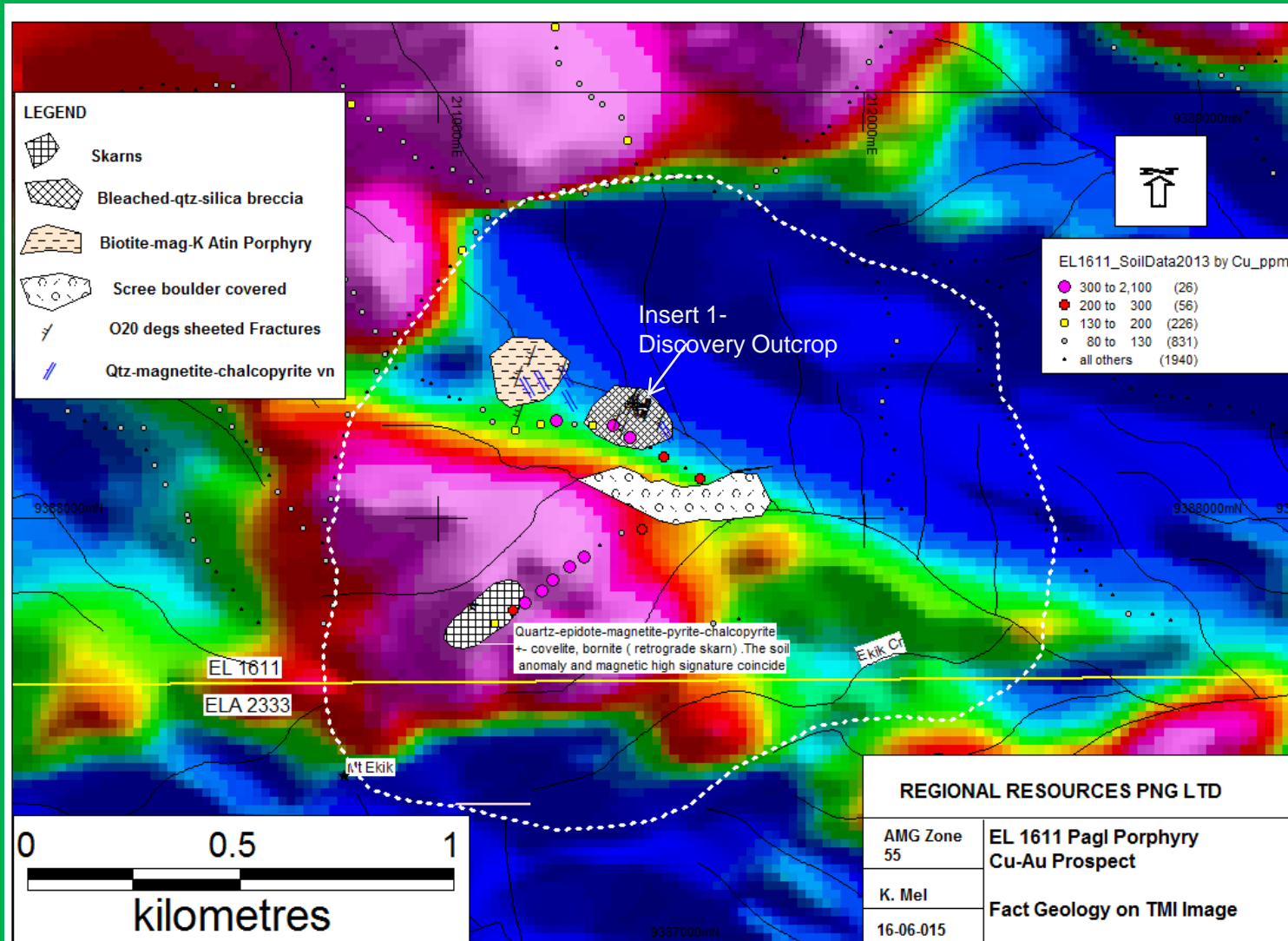
- Triassic Kana Volcanic group-mixture of volcanic and sedimentary units form the barren cap, obscures potential mineralization
- Mid-upper Miocene Intrusive units (felsic-feldspar porphyry to basic to intermediate diorite porphyry intrusions) introduce and play host to mineralization
- North south, North northeast, Northeast, East West structures induce and carry mineralization cut NW-SE trending structures



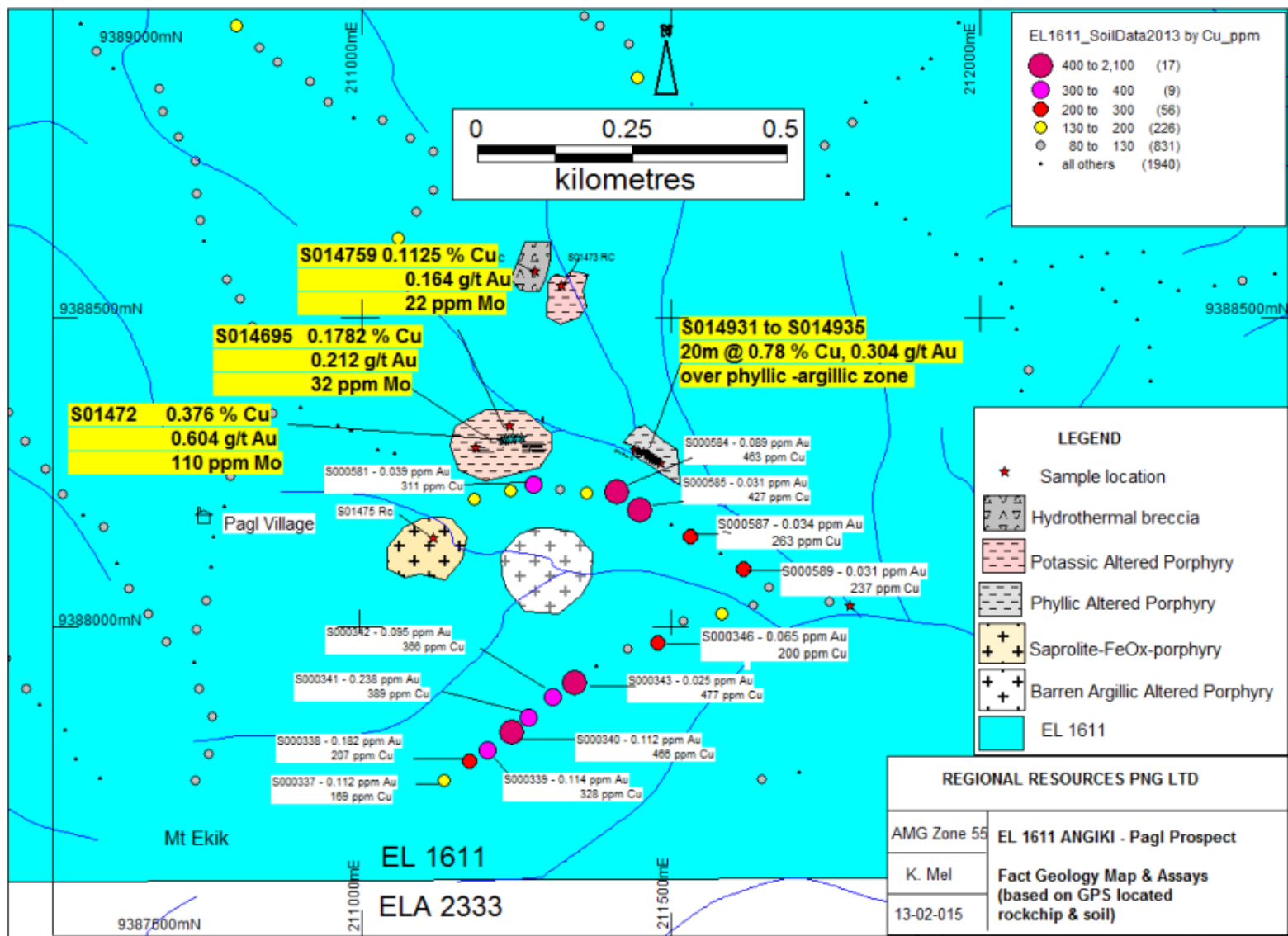
# Pagl Prospect Fact Map (Based on GPS) on DTM Image



# Pagl Prospect on Airborne TMI Image



# EL 1611 Pagl Prospect: Fact Geology and Anomalous Rock Chip and Ridge and spur Soil Assays (Based on GPS)



# Discovery Outcrop: Images with evidence of mineralization

A Window of Opportunity



Local prospectors- Slope angle of outcrop to top of dome shaped hill is 30 degrees to top.

# Cu-Au mineralized Outcrop extends over 45 m – Open in all directions



Chalcopyrite, chalcocite, covelite, bornite in  
phyllitic (qtz-silica-sericite) zones



**Evidence: Phreatomagmatic (diatreme ??) Breccia within mineralized zone (Discovery outcrop)**

# Phyllic- Argillic-silica with ore grade copper results hosted within phreatomagmatic/diatreme breccia



Discovery Outcrop- rounded clast with pervasive chalcopyrite, chalcocite disseminations associated with qtz-sericite-silica alteration. Silicified and oxidized matrix with disseminated chalcopyrite-chalcocite (black stains) and secondary Cu (Malachite).

# Rimmed Weathering in Clasts



Weathering defined by secondary copper on the margins of the clasts with oxidised matrix host. The clasts contain pervasively disseminated chalcopyrite and chalcocite.

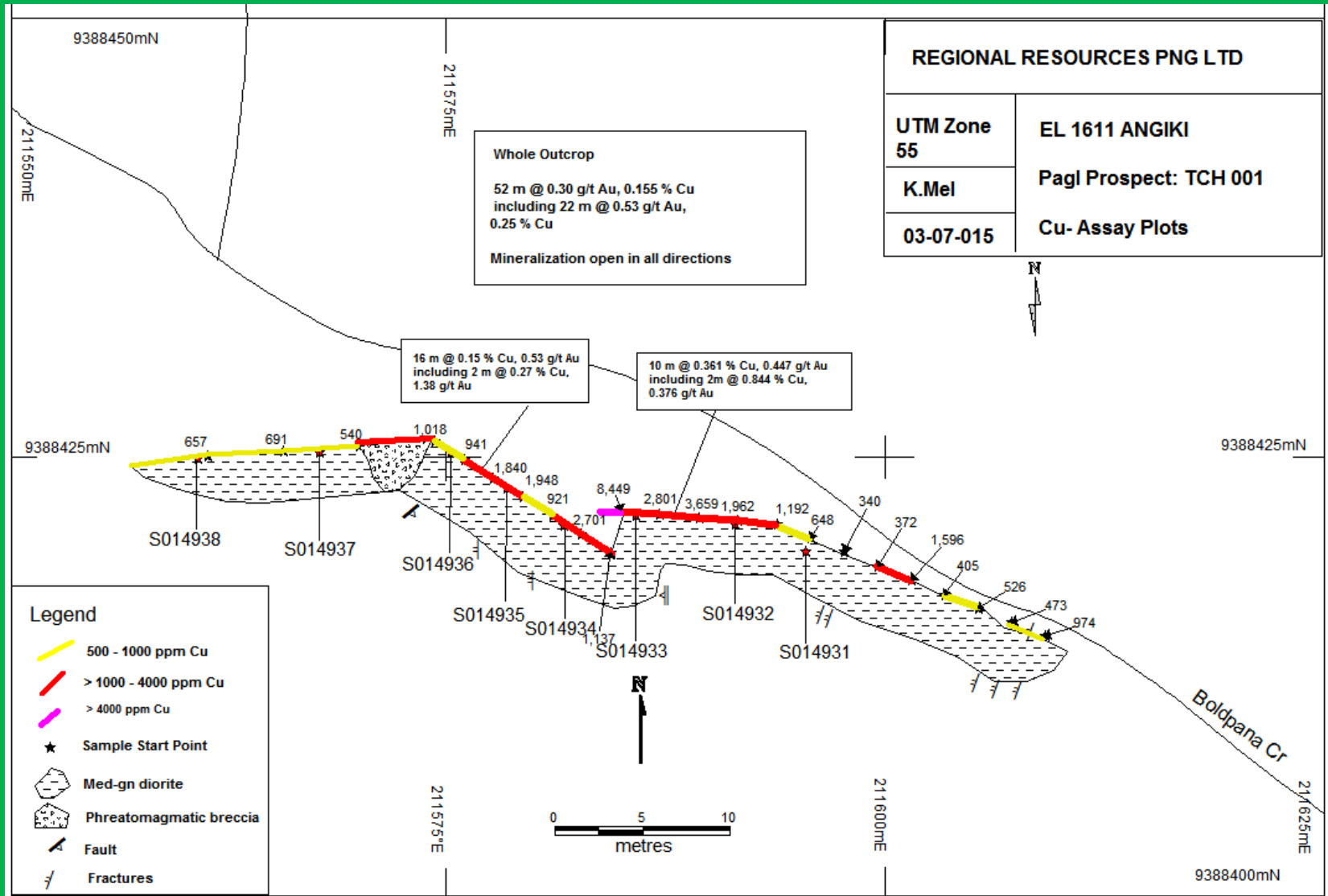


# Rounded Clasts

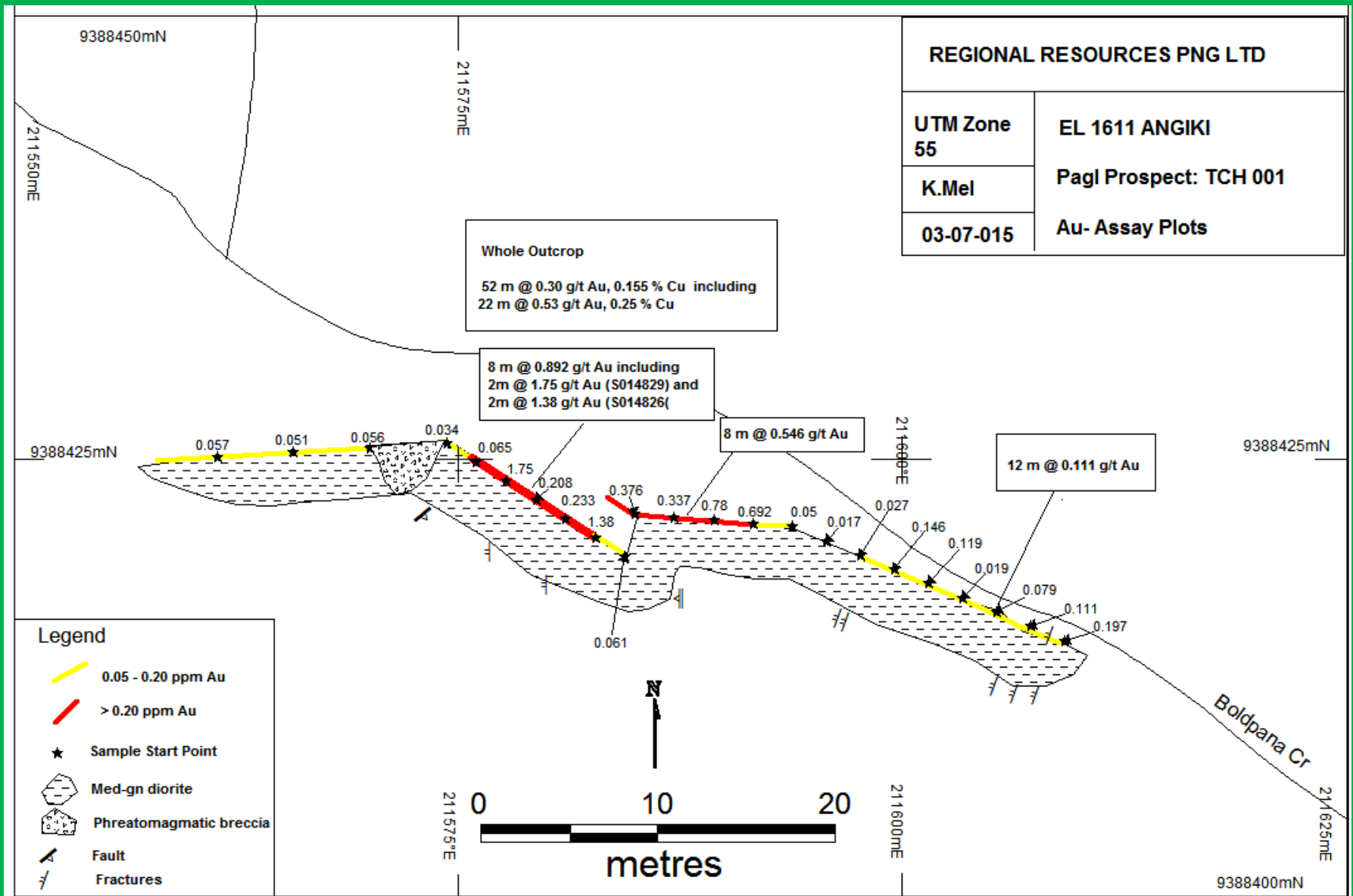


Discovery Outcrop- Quartz-sericite-silica altered rounded clasts with disseminated chalcopyrite, chalcocite-may represent a phreatomagmatic /diatreme breccia.

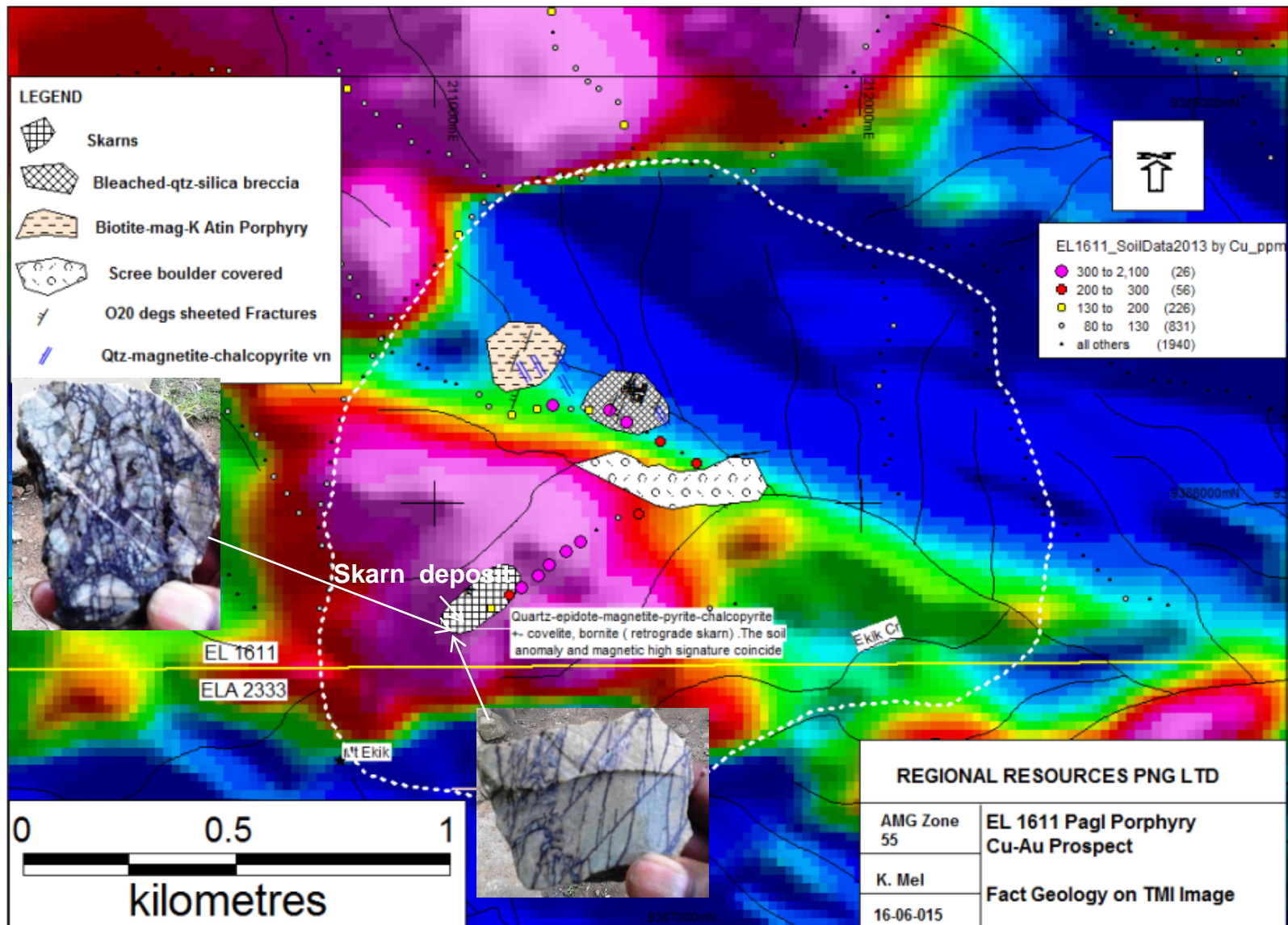
# Discovery Outcrop: Channel Sample Cu ppm Assay Plot



# Discovery Outcrop – Au ppm Assay Plot



# Skarn Alteration and Mineralization located 600m SW of discovery outcrop coincident with high TMI Signal.



# Skarn Outcrop Images

(Grab samples collected, no assays done pending further investigations)



**Crackle Breccia-later filled and cut by magnetite-pyrite-chalcopyrite**



**Magnetite +- pyrite-chalcopyrite vein stock work in sediment**

# Data Acquired Insufficient For Evaluating Real Potential

## Work Undertaken Leading to current Cu-Au Mineralisation Discovery

- Acquired Data Review
- Airborne Geophysics merged with MRA 2006 data reviewed
- Harmony's Ridge and Spur Soil results targeted
- Local Prospectors –were sent to investigate and sample mineralized outcrops based on anomalous soil geochemistry.
- Latest field reconnaissance mapping by me confirm a complex porphyry style alteration and mineralization types present at the Pagl Prospect area. This is an untapped potential.

## Further Work Required to Realize Porphyry Cu-Au Potential

- Creek Mapping ( No creeks have been mapped here)
- Grid Auger Soil Lines
- Ground geophysics (magnetic, IP, EM)
- Drilling ( current discovery outcrop present current potential drill target)
- Compilation of data, interpretation and drill target generation.

# Social Mapping and Community Assessment



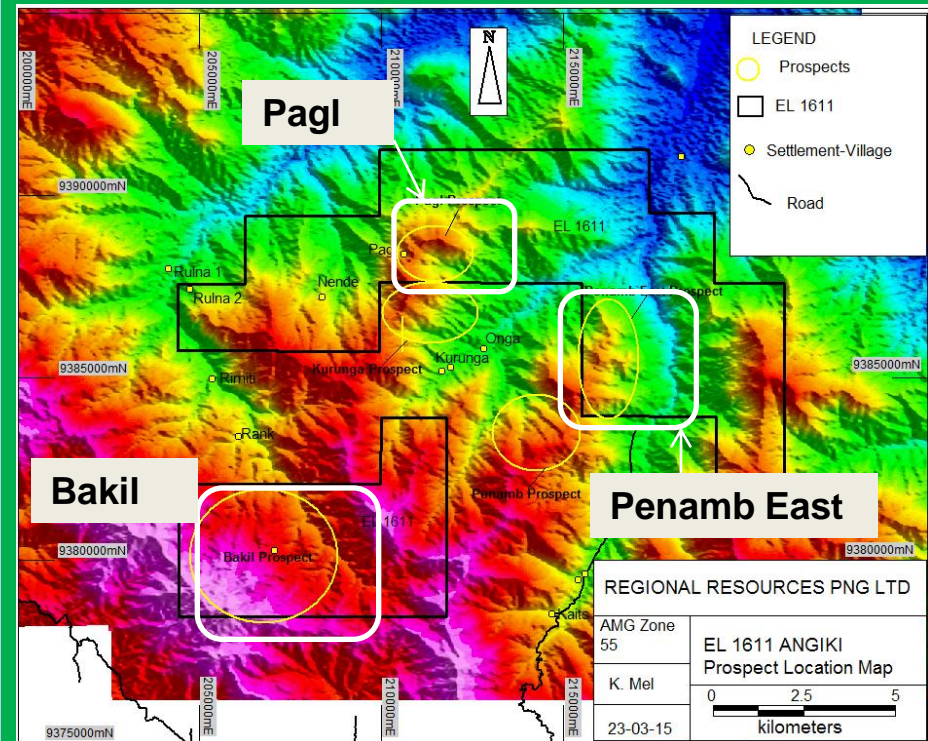
- Only one council ward with just one tribe (Palge tribe) owns the prospect area. Their hamlets scattered with just over 300 people.
- One extended family owns the area where the main prospect with mineralized outcrops are located. Pig huts and gardens located within the prospect area belongs to this particular family.
- This extended family group plus locals are very supportive and wants exploration work to start soon. They helped carry 45 samples to the road after I went there recently
- The extended family that I am with on this photograph is the only family that owns the prospect site. Their hamlets are on the rides surrounding the prospect area.

# Other Prospects within EL 1611

## Penamb East Prospect

- NE trending structure controlled epithermal Au-Ag.
- Located 5km SE of Pagl Prospect
- Up to 9.6 g/t Au, 700 g/t Ag, 1.05 % Pb, 0.43% Zn and 6.5 g/t Au, 9.4 g/t Ag, 504 ppm Pb, 570 ppm Zn, and 4.09 g/t Au, 3.5 % Pb, 0.28 % Zn in outcrop
- High tenor stream sediment geochemistry –out of 12 samples 10 returned >100 ppb Au including 8 with >500 ppb Au draining the same catchment area
- Three Drill holes were drilled at 0.50 km and 1 km apart and over 250 m away from the mineralized zone.

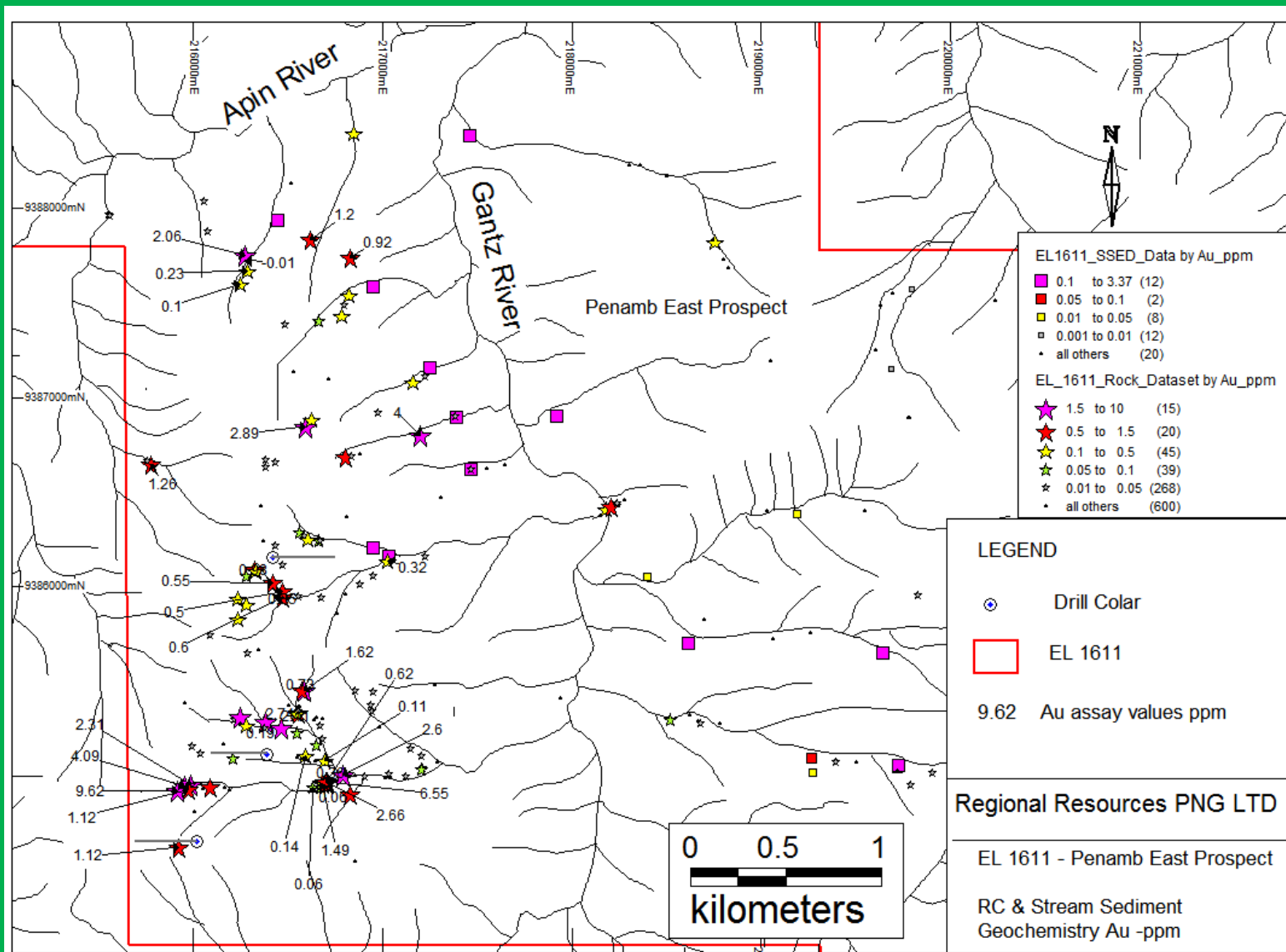
## Penamb East Location Map



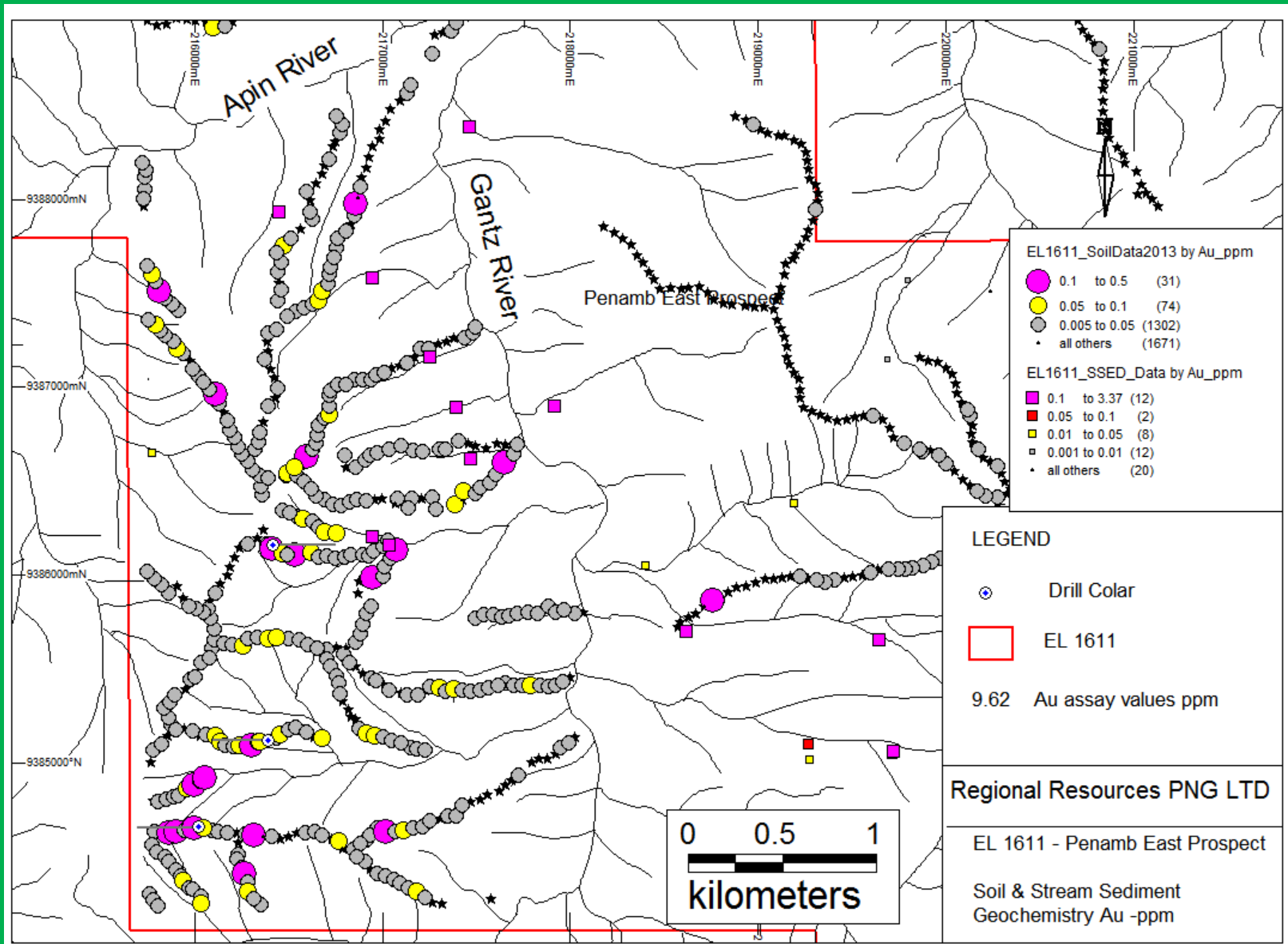


# Penamb East Prospect

## Rock Chip & Stream Sediment Au geochemistry



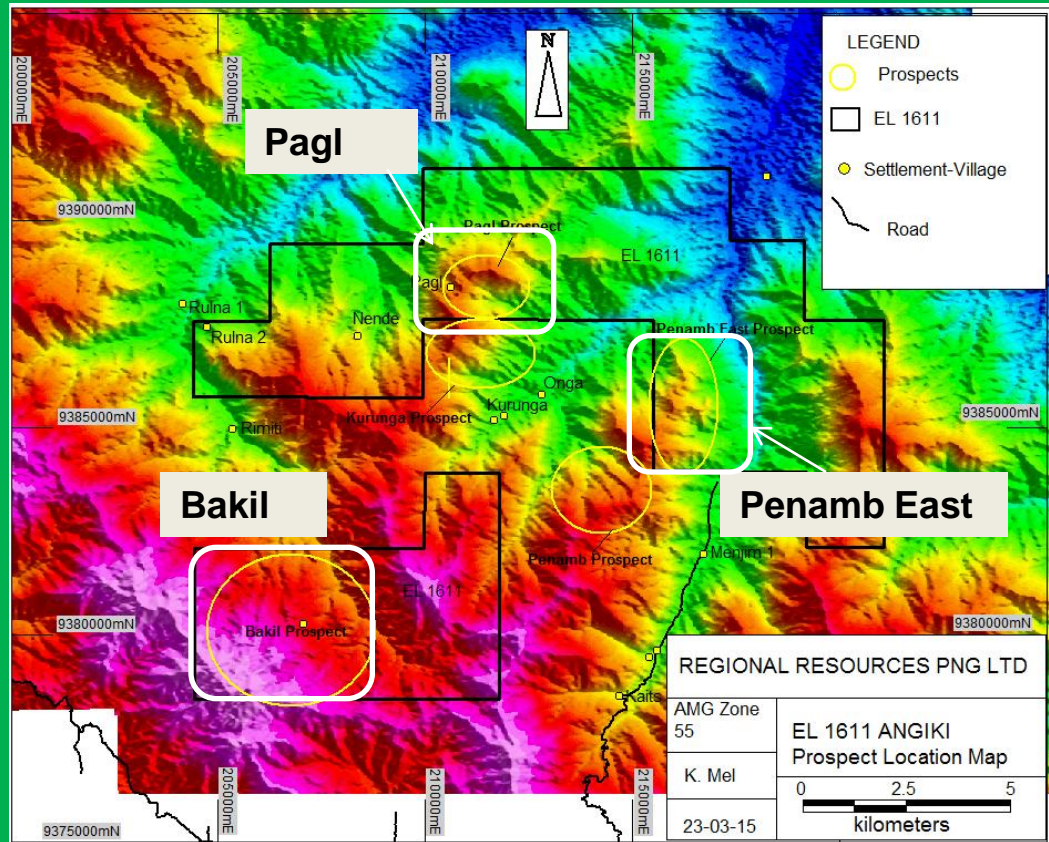
# Penamb East Prospect – Soil & S.Seds Geochemistry Au-ppm



## Bakil Prospect

- Porphyry Cu-Au Target
- Highly anomalous coppers assays up to 9.0 % Cu recorded in tight veins.
- Masked by the thick barren Triassic Kana Volcanic Group.
- Anomalous Cu in ridge and spur soil geochemistry
- Drilling failed to find a porphyry system at depth over a broad zone sodic-albite alteration considered synonymous with advanced argillic alteration .
- Magnetite-specular hematite-pyrite-chalcopyrite mapped lately at Mt Neblyer

## Bakil Prospect Location Map



# To Potential Investors

- We are looking for potential investors for a farm-in JV partnership.
- Terms and conditions can be discussed at board level.
- Ready to sign confidentiality Agreement (CA) for access to existing data for review.
- Helipads ready for site visits to discovery outcrop site.

# Contact Address

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