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ASX Limited
Market Announcements Platform

29th April 2016

# QUARTERLY ACTIVITIES REPORT – QUARTER ENDED 31st MARCH 2016

Frontier Resources Ltd (ASX:FNT) is focussed on mineral exploration in Papua New Guinea (PNG) and its 100% interests in the Bulago and Muller Exploration Licences (**Figure 1**). PNG is recognised as being highly prospective for very large copper and gold mineral deposits.

Frontier is targeting copper+/- gold +/-molybdenum porphyries and intrusive related epithermal gold deposits in the Papuan Fold Belt on the geologically young southern fall of the mountainous spine of PNG.

- Exploration at the Bulago EL to capitalise on the increased US dollar gold price and leveraged Australian dollar - PNG Kina includes:
  - A strategic diamond core drilling program that commenced 21 April 2016 at the Swit Kia Prospect – Bulago, to evaluate the known very high grade gold mineralisation with the Company's onsite CSD500 drill rig.

    Targets are Swit Kia Prospect's undrilled Upper and Lower Zone eastern strike extensions, where jackhammer sampling at the Upper and Lower Zones demonstrated a 2.0m wide zone grading 195.0 g/t gold (77-degree south dip) and 3m wide zone grading 45.2 g/t gold (50-degree south dip), respectively.

  - Fourteen possible skarn mineralised areas were demonstrated with ten proximal to the overlying limestone contact and spaced relatively consistently all around the Bulago basin. Three targets are located within the basin itself, with two relatively close to the Swit Kia Prospect and undoubtedly related. The fourteenth possibility is a sinkhole skarn target near the EL's topographic high. The aeromagnetic skarn anomalies located southwest, south and southeast of Swit Kia will be evaluated for prospectivity with soil and rock chip sampling, then possibly drilling.

  - Drainages located to the northwest and north of the Swit Kia Prospect have never been properly sampled for gold and will be evaluated by panned concentrate sampling as possible (this includes one of the targets noted above). Historical panned concentrate and steam sediment anomalies are located in tributaries of these drainages located to the immediate west of Swit Kia – indicating unevaluated strike potential to the west.

  - Frontier will assess small scale alluvial gold development opportunities with the Landowners, as currently being advocated by the PNG Mineral Resource Authority.

- Exploration Licence 2356 - Muller Range (330 $km^2$) was granted in the highly geologically prospective Fold/Thrust Belt of PNG.
  - The EL is along strike to the SE of Frontier's Bulago Project (Figure 1) and contains (NW to SE):
    - Two known porphyry occurrences (Tingi and Baia).
    - A possible high sulphidation/ intrusive related gold prospect and a possible buried porphyry copper-gold-molybdenum target (Cecilia River).
    - Copper in stream anomalies in the structural zone to/at the Mt Sisa volcanic centre.
  - The Baia and Tingi Prospects are drill ready and all prospects warrant significant additional exploration.

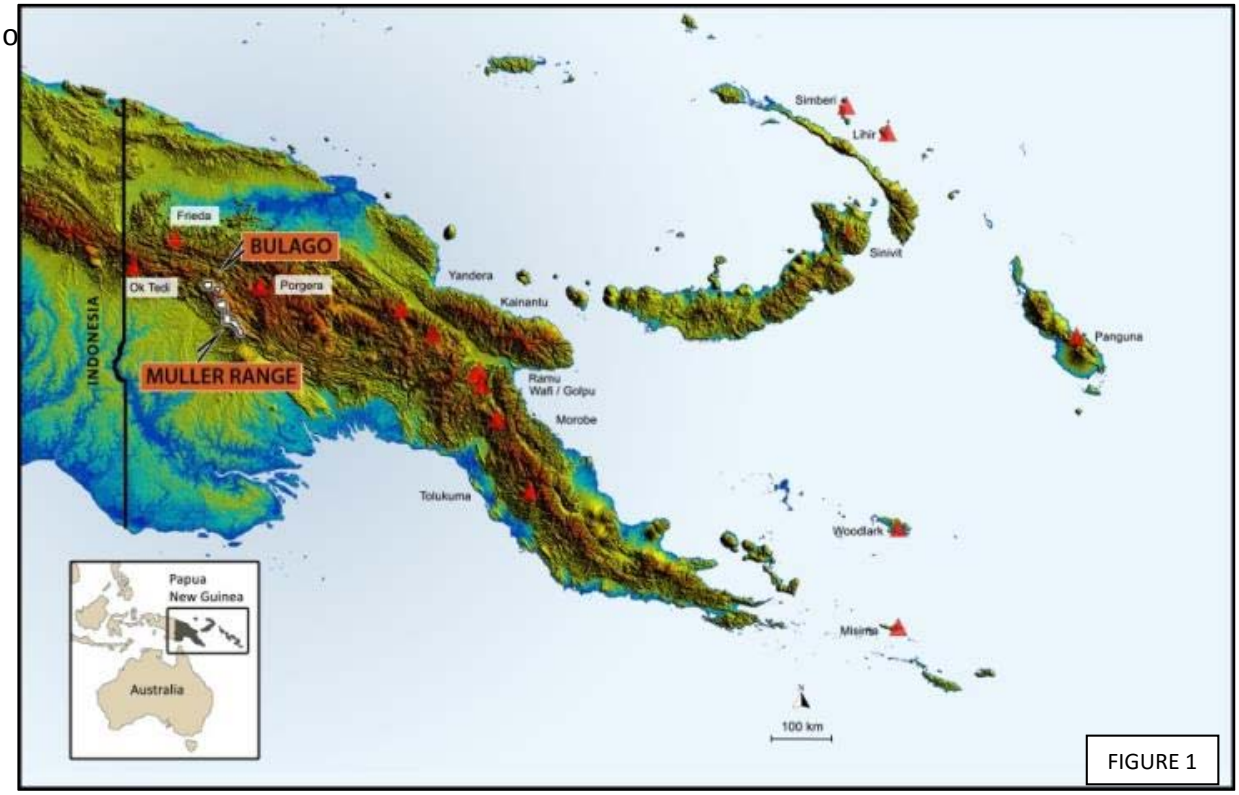
- Corporate
  - Frontier's Managing Director - Paige McNeil resigned as Managing Director to pursue other opportunities, but remains a Non-Executive Director.
  - Chairman - Peter McNeil has been re-appointed Managing Director and remains Chief Geologist.
  - Peter Swiridiuk reverted to a Non-Executive Director role, but still assists with geophysical data compilations and project assessments.
  - Management/ Director Consultants have all taken 20% or more decreases in their daily rates to assist Frontier's cash flow through a difficult time in the minerals/investment cycle.
  - Tasmanian and Papua New Guinean Exploration License bond refunds have been received totalling ~$55,000. In addition, $130,000 has been received from the sale of the Tasmanian assets. Subsequent to the quarter, $112,000 in Tasmanian bonds from EL20/1996 and EL30/2010 was received.
  - 

FIGURE 1

**BULAGO DETAILS**

An aeromagnetic and geochemical data review of Bulago (EL 1595) was completed by Director Peter Swiridiuk (Principal Consulting Geophysicist - Aimex Geophysics) who undertook the evaluation titled Geophysical and Geochemical Data Review, Bulago Valley, EL 1595 and it is presented below.

Ten possible skarn mineralised areas were demonstrated proximal to the overlying limestone contact spaced relatively consistently all around the Bulago basin and three targets are located within the basin itself, with two relatively close to the Swit Kia Prospect and undoubtedly related.

The northern and eastern skarn targets on the basin margins are difficult to access by foot due to topographic constraints, but the other targets located to the southwest, south and southeast of Swit Kia will be evaluated during the present exploration program for mineralisation prospectivity, as announced to the ASX on 18/4/2016.

The fourteenth target is an enigma, as it is a large sinkhole (diameter of about 430m and at least 60m deep) that occurs in the Darai limestone at the intersection of several major crustal/regional scale structures, that would have been excellent conduits for mineralisation; it is located approx. 600m to the east-south-east of the highest topographic point in the EL, which is only 60m higher than the top of the sinkhole. The mountain peak is interpreted to be part of the western sector of the Sinkhole's donut shaped contact metamorphic aureole, which is interpreted to result from an underlying intrusive that is more resistive to weathering /erosion than

its centre.

The skarn potential of the Bulago region had never been previously evaluated, except for the collection of some float and outcrop rock samples and a brief evaluation of the Funutu area by Frontier in 2009 and further evaluation by former Joint Venture partner Ok Tedi Mining Ltd (OTML) (which demonstrated a high percentage of samples collected with between 0.1% and 0.2% copper and up to 0.2 g/t gold). These are significant values for initial reconnaissance.

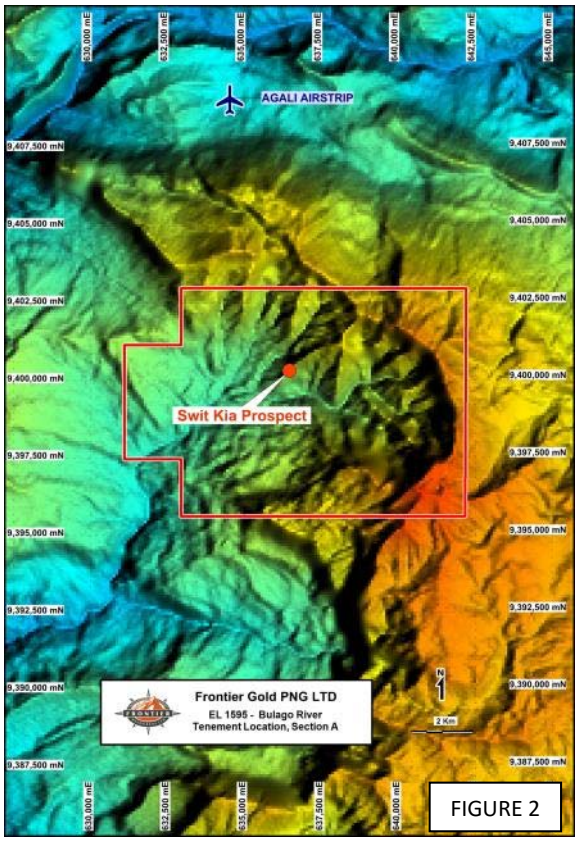


FIGURE 2

Skarn mineralisation forms in limestones and limey sediments that are proximal to intrusions, particularly porphyry copper/gold intrusions; the mineralisation results from chemical reactions between the limestones and the introduced hot metalliferous hydrothermal fluids. **Skarns often contain appreciable amounts of magnetite which can be detected from geophysical aeromagnetic surveys.**

Skarns can be highly significant mineral deposits, often containing large tonnages of relatively higher-grade precious and base metal mineralisation. OK Tedi is now mining skarns that are associated with its porphyry copper mineralisation and the giant Grasberg Mine (West Papua) was discovered relatively close by (across the valley) more than a decade after its related Ertzberg skarns were mined.

Additional geochemical information regarding some of the skarn targets follows Peter's report and should be read in conjunction with it.

## 1.0 EXECUTIVE SUMMARY

The geophysical and geochemical data from Bulago Valley (EL 1595) show the area to be highly prospective for gold, copper and molybdenum. A total of 14 skarn targets are yet to be tested by drilling and sampling. In addition, four areas of anomalous geochemistry require follow-up mapping and sampling for porphyry related mineralisation. Significant gold in drainages further highlight the potential for gold deposits in the area as well as the possibility of low cost alluvial gold mining.

Ok Tedi Mining Limited completed seven drillholes at Bulago for 2711.1m and two drillholes at Suguma (Swit Kia prospect) for 591.9m. They also completed an airborne geophysical survey in 2010 and a soil sampling programme between 2011 and 2012.

The airborne radiometric data (potassium, thorium and uranium equivalent channels), have been used to define the boundaries of Darai Limestone along the Bulago Valley Rim and the inner intrusive monzonite to diorite stocks.

The occurrence of monzonite to diorite intrusive stocks and limestone within Bulago Valley suggest potential for the development of skarn mineralisation around the intrusive margins.

From the airborne magnetic data, seven skarn targets were selected in the upper headwaters of existing drainage (Sunguru Ck, Fornusu Ck, Orolupe North, Orolupe Ck, Bulago Ck, Funutu East Ck, Funutu Ck) along the upper valley escarpment rim, being the contact margin with Darai Limestone. A further six skarn target areas (Suguma Ck, Kapia Ck, Bulago2 Ck, Emboro Ck, Pampalu Ck, Pampalu2 Ck) were identified within Bulago Valley near the margins of inner intrusive stocks.

From the existing soil, rock and trench geochemistry, four target areas were identified as being recommended for follow-up mapping and sampling. These include the Swit Kia gold(lead) Zone in the headwaters of the Swit Kia prospect, Fornusu copper + gold (molybdenum) Target, Orolupe gold (lead) Target and the Funutu gold +

copper + molybdenum (lead) Target, which drains from the Funutu Skarn in the upper headwaters of Funutu Creek.

Rock samples from the Upper Funutu Creek assayed 1380 ppm, 1300 ppm, 1060 ppm copper and up to 0.22 g/t gold. A magnetic skarn target has been identified at the headwaters of Funutu Creek at the contact margin of Darai Limestone in the outer escarpment zone.

Local landowners sometimes pan for alluvial gold downstream from the Bulago Valley and there is a possibility for economically viable larger scale gold sluicing by Frontier Resources Ltd to generate income from an operation with relatively low capital expenditure. Four areas were selected where there is highly anomalous gold collected from historical stream sediment and panned concentrate stream samples in locations with reasonable access in the lower reaches of drainages.

The Swit Kia sluicing target at Suguma Creek occurs downstream from the Swit Kia high-grade gold Prospect. The Orolupe gold sluicing target is at the intersection of the Bulago River and Orolupe Creek. The Bulago Sluicing target occurs between OTML drillholes BUL002 and BUL004. The Funutu Sluicing target is next to a helipad and is downstream from skarn and anomalous gold in stream, soil and rock samples.

It is recommended to further investigate the skarn and geochemical target areas and set-up a gold sluicing system to determine the viability of collecting alluvial gold.

Drillholes BUL001 to BUL007 within the Idawe Intrusive Stock need to be reviewed by plotting cross-sections of geochemistry and geology to compare with three dimensional modelling of the airborne magnetic data.

## 2.0 GEOPHYSICAL DATA REVIEW

UTS Geophysics completed a low-level airborne magnetic and radiometric survey of the Bulago Prospect area in 2010 for Ok Tedi Mining Ltd. The Ok Tedi fact and interpretive geological maps were reviewed in conjunction with the airborne radiometric data to define the boundaries of intrusives /limestones within the tenement boundary at Bulago Valley.

The radiometric data ratio between equivalent potassium channel (eK) and equivalent thorium channel (eTh) as a greyscale image highlights intrusive phases of monzonite to diorite composition mapped in the area. The Idawe intrusive is defined by a high eK:eTh ratio (Figure 3) and is generally red colour in the Ternary radiometrics image (Figure 4). This intrusive, also high in the magnetics imagery (Figures 5 and 6), has been reported by Ok Tedi to be emplaced into Upper Cretaceous carbonaceous and calcareous sediments including siltstone, limestone and mudstone. The Idawe stock comprises a number of phases varying from monzonite to diorite in composition.

Ok Tedi drillholes BUL001-007 (Figure 10) were completed within the Idawe intrusive (Bulago porphyry) to test magnetic anomalies but only the margins of the gold-copper soil anomalies. In my opinion, OTML effectively ignored the strongest surface geochemistry and targeted their holes based predominantly on magnetic susceptibility.

BUL007 returned the best gold intersections with 346m at 0.11 g/t gold + 0.07% copper from 235m depth. The peak copper grades occurred near the bottom of hole (within the intercept noted above) with 37m grading 0.12% copper (+ 0.08 g/t gold) from 507.4m, then 11.8m deeper was 44.2m grading 0.135% copper + 0.11 g/t gold

BUL001 returned the best copper intersections of 124m at 0.14% copper from 119m depth with no significant gold within altered monzonite, plus 12.7m of 0.11% copper + 0.10 g/t gold from 371.8m depth, plus three additional intercepts with gold and effectively no copper (to a peak of 3m grading 2.04 g/t gold).

The other drillholes intersected K-feldspar altered monzonite porphyry with some copper and gold mineralisation. Higher readings in the K:Th ratio image (Figure 3) seem to be a reasonable predictor of the presence of K-feldspar monzonite intrusive. Petrography indicates the presence of a complex suite of intrusives in the Bulago Valley with similarity to other alkali porphyry deposits including Cadia (NSW), Dinkidi (Philippines and British Columbia (Canada). Every hole drilled produced an intercept with > 1.0 g/t gold.

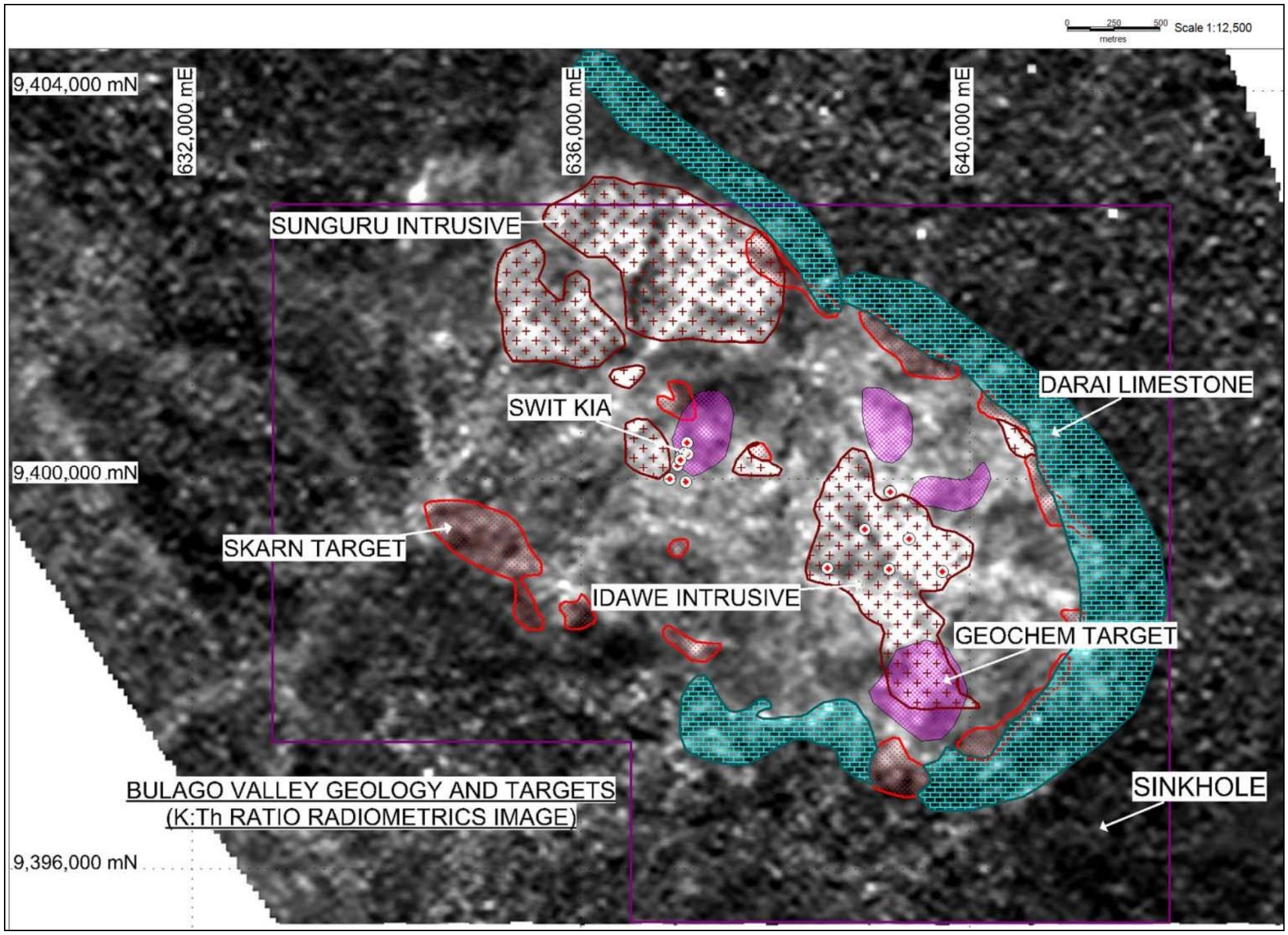



**Figure 3: Radiometrics K:Th Ratio Image Highlighting Intrusive Complexes**

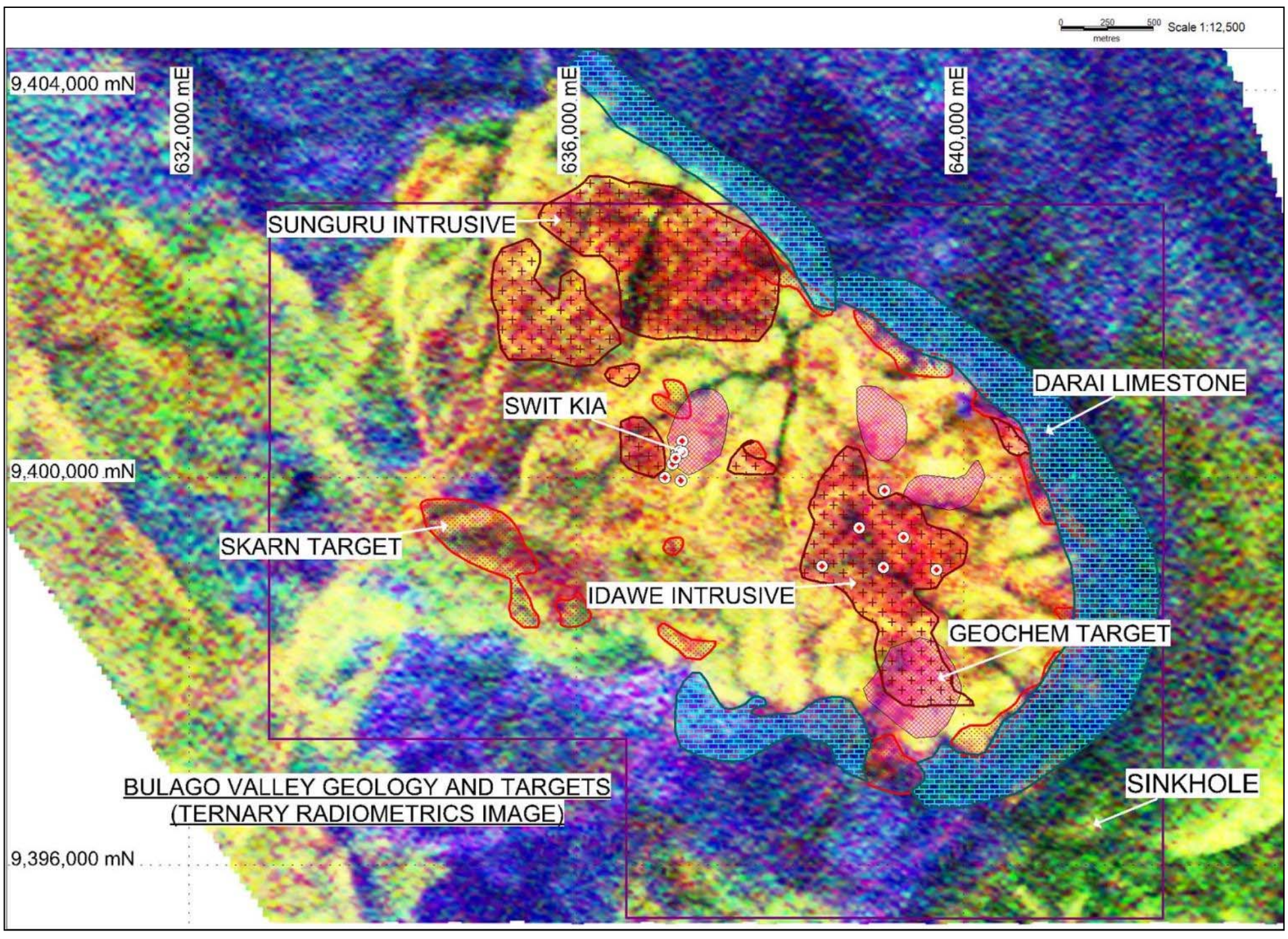



**Figure 4: Ternary Radiometrics Image (Red=Potassium, Green=Thorium, Blue=Uranium)**

Elevated readings in the K:Th ratio image (Figure 3) have been interpreted as intrusive complexes near Suguma Creek, surrounding the Swit Kia Prospect and at Sunguru Creek. These complexes are also evident from the Ternary image (Figure 4) as reddish in colour. Ok Tedi reported evidence of weak potassic alteration with disseminated K-feldspar associated with the Suguma Diorite, which can be detected from high K:Th ratio imagery.

The presence of limestone within the 'Bulago Valley' and its eastern escarpment of Darai Limestone (Figure 7) suggest that the proximal feldspar intrusives may concentrate mineralisation into localised skarns at the Limestone contact. At Funutu Creek (Figure 8), a boulder of highly mineralised skarn was first described from the historical Kennecott-Niugini Mining joint venture exploration programme (1983 to 1985). A large zone of anomalous gold in stream, rock and soil samples occur at Funutu Creek, 500metres downstream from the interpreted Funutu Creek Skarn.

Skarn mineralisation often develops around the borders of intrusions such as monzonite and granodiorite, making the Bulago Valley a target area for skarn ore deposits. **Skarns often contain appreciable amounts of magnetite which can be detected from geophysical magnetic surveys.** From the airborne magnetic images (Figures 5 and 6), seven skarn targets have been identified along the eastern escarpment rim of (Figure 7) Darai Limestone. An additional six skarn targets have been identified within the Bulago Valley escarpment (see Section 3.1)

Feldspar porphyry has been reported at Kapia Creek, 600m east of Swit Kia (Figure 8), where there is an interpreted intrusive associated with a high K:Th ratio anomaly (Figure 3).

At Fornusu Creek, quartz monzonite porphyry intrusives have been identified where anomalous gold in stream and rock samples have been outlined as a copper + gold (molybdenum) geochemical target zone (Figure 8).

## 3.0 Skarn Targets

The occurrence of monzonite to diorite intrusive stocks and limestone within the Bulago Valley (Figures 5, 6 and 7) area suggest potential for the development of skarn mineralisation around the intrusive margins.

Ok Tedi followed-up pyrrhotite-chalcopyrite-pyrite-sphalerite mineralised boulders of skarn in Funutu Creek reported by Kennecott Mining in 1985. Ok Tedi found sub-cropping sulphide skarn mineralisation, mineralised intrusives and diorite endoskarn in the headwaters of Funutu Creek.

*Funutu Ck Skarn:*

A significant airborne magnetic anomaly (Figures 5 and 6) has been identified in the upper headwaters of Funutu Creek at the contact with Darai Limestone on the south-eastern escarpment of Bulago Valley (Figure 7). The 600m diameter target (639310e, 9397060n) sits in the upper reaches of Funutu Creek 150m upstream from significant geochemical anomalies and 900m upstream from an area proposed for alluvial gold sluicing. Ok Tedi report that there is no magnetic anomaly associated with the geochemical anomalism downstream from the skarn target. This may be due to smaller amounts of magnetite related to narrow patches of mineralisation that cannot be discriminated in the airborne data.

Funutu East Skarn:

This magnetic anomaly occurs as a 1500m elongated target along the contact with Darai Limestone on the south-eastern escarpment. The anomaly (Figure 5) cuts the upper reaches of the Bulago River (640820e, 9398000n).

Bulago Ck Skarn:

A 200m diameter magnetic target (641090e, 9398560n) occurs at the eastern upper reaches of one of the Bulago River tributaries (Figure 5). The target occurs at the contact with Darai Limestone.

Orolupe Ck Skarn:

This 1000m elongated magnetic anomaly runs along the contact with Darai Limestone at the eastern margin of the Bulago Valley escarpment (Figure 6). It cuts the Orolupe Creek (640630e, 9400040n) 400m upstream from gold and lead anomalism in soil and rock samples.

Orolupe North Skarn:
This 600m long magnetic anomaly occurs on the eastern escarpment on the contact with Darai Limestone (Figure 6) cutting through the upper reaches of the Orolupe Creek (640550e, 9400510n) and 500m upstream from a gold in soil anomaly.

Fornusu Ck Skarn:
This 1200m elongated magnetic anomaly (Figure 6) runs along the north-eastern escarpment contact with Darai Limestone in the upper reaches of Fornusu Creek (639050e, 9401420n). It is 600m upstream from anomalous gold in stream samples.

Sunguru Ck Skarn:
This 1100m elongated magnetic anomaly (Figure 6) occurs in the upper reaches of Sunguru Creek (638080e, 9402010n) at the contact of the Sunguru Intrusive complex with Darai Limestone. A gold sluicing target occurs 2400m further downstream.

Six skarn magnetic anomalies (Suguma Ck, Kapia Ck, Bulago2 Ck, Emboro Ck, Pampalu Ck, Pampalu2 Ck) have been identified downstream within the Bulago Valley near the margins of interpreted intrusive stocks. These skarn targets are logistically more readily accessible to further exploration testing such as rock sampling, compared to those on the upper escarpment. Frontier plans to reconnaissance map and soil/rock chip sample all of these zones if possible during the 2016 exploration program.

Suguma Ck Skarn:
This 340m diameter magnetic anomaly (637000e, 9400810n) occurs 400m **upstream** from the Swit Kia prospect with gold anomalous stream samples downstream. An interpreted monzonite intrusive lies 200m to the southwest (Figure 5). Remnant intrusive diorite clasts and hornfelsing is reported in rock samples at the margins of this anomaly.

Kapia Ck Skarn:
Adjacent to the Suguma Creek, this 160m diameter magnetic anomaly (Figure 5) is 650m east of Suguma Creek on the northern margin of an interpreted monzonite intrusive (637840e, 9400290n).

Bulago2 Ck Skarn:
This 160m diameter topographic round knob hill /magnetic anomaly (Figure 5) is 700m downstream from Swit Kia (636990e, 9399290n) and 100m south of the Bulago River.

Emboro Ck Skarn:
At the headwaters of Emboro Creek (637220e, 9398240n), this 500m by 150m magnetic anomaly is about 1100m upstream from the junction of the Bulago River and 100m north of interpreted Darai Limestone (Figure 5).

Pampalu and Pampalu2 Ck Skarns:
Further downstream from Swit Kia and 600m northeast of 'Topse Village' (633950e, 9399020n), the 1,000m elongated Pampalu Ck skarn target straddles (is split by) the Bulago River (634600e, 9399490n). The aeromagnetic anomaly that covers this sector of the river has NEVER been mapped or sampled, as it is a gorge. The smaller 230m diameter Pampalu2 Ck magnetic anomaly (635970e, 9398610n) occurs further upslope to the south of Pampalu (Figure 6).

## 4.0 GEOCHEMISTRY REVIEW

The Swit Kia gold (lead) Zone (637220e, 9400410n) is a 900m x 500m area of anomalous gold in stream, rock and soil geochemistry which also encompasses the Swit Kia prospect (Figures 8 and 9). The area occurs between two interpreted monzonite intrusives 100m to the southeast and southwest. Ok Tedi reported quartz-base metal veins assaying 1.46 to 16.45 g/t gold. Frontier Resources completed additional jackhammer trench sampling and drilling with extensive documentation of results.

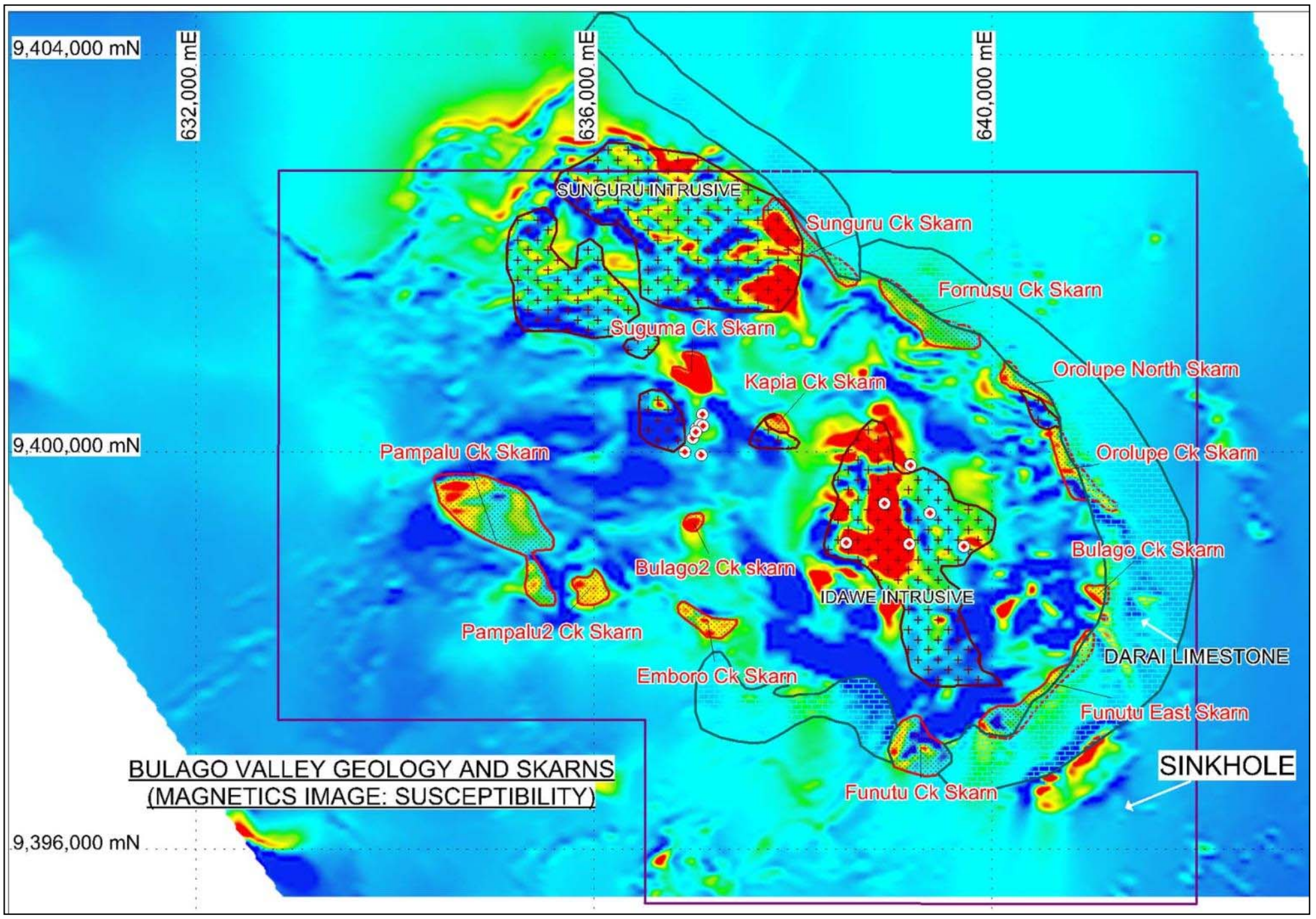



**Figure 5: Modelled Magnetics (susceptibility) Image Showing Skarn Targets**

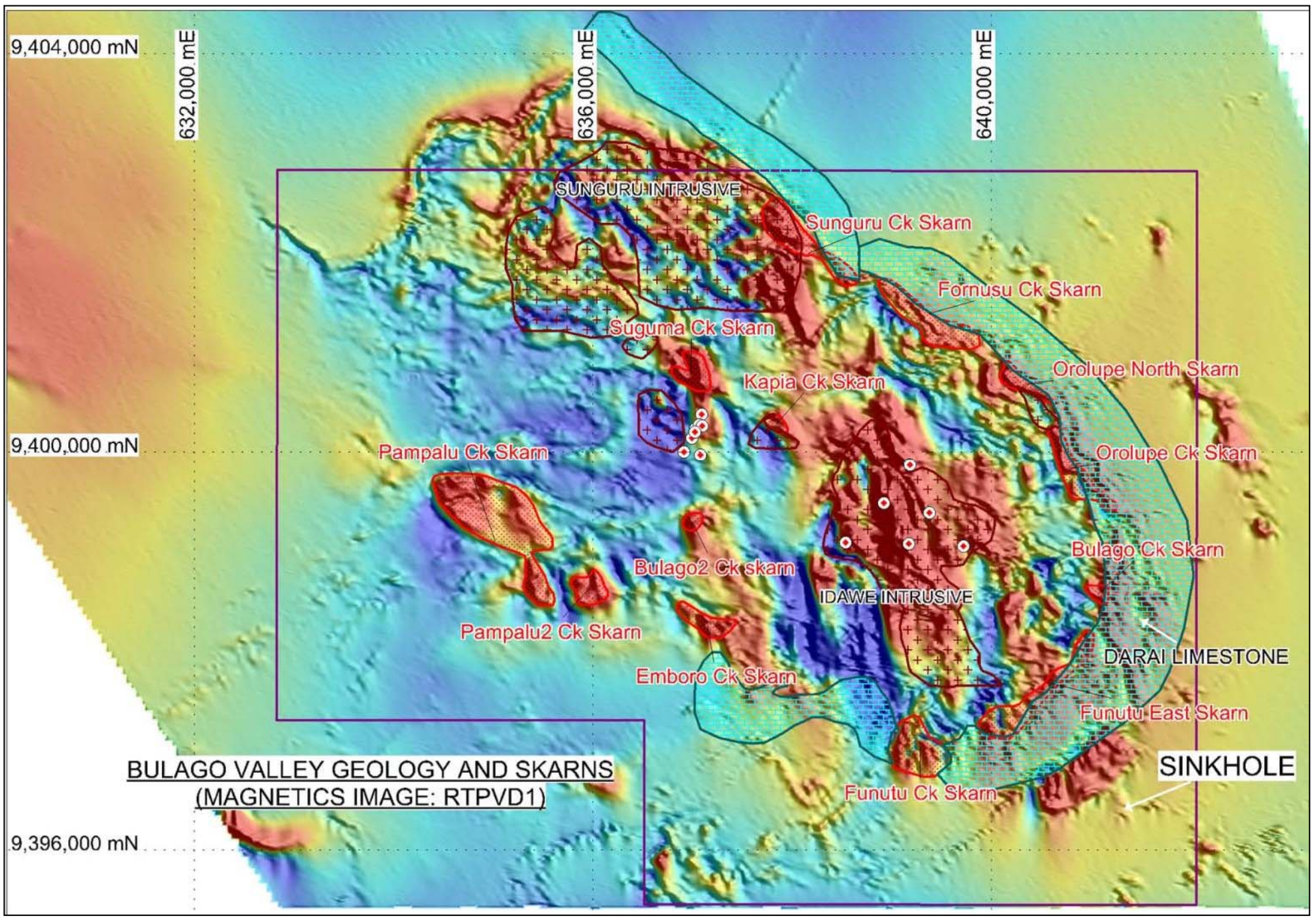



**Figure 6: Magnetics Image (RTP VD1) showing Skarn Targets**

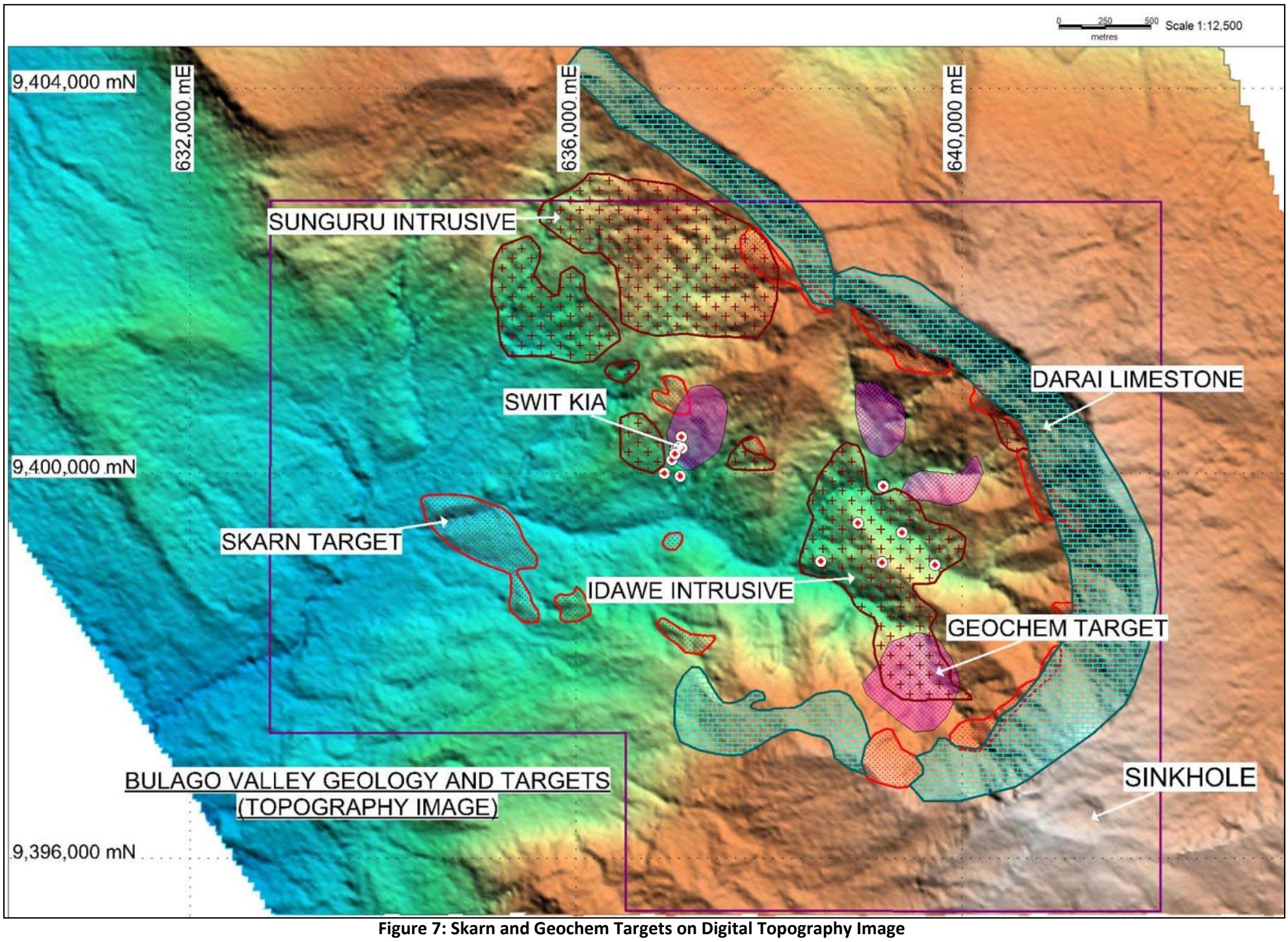



**Figure 7: Skarn and Geochem Targets on Digital Topography Image**

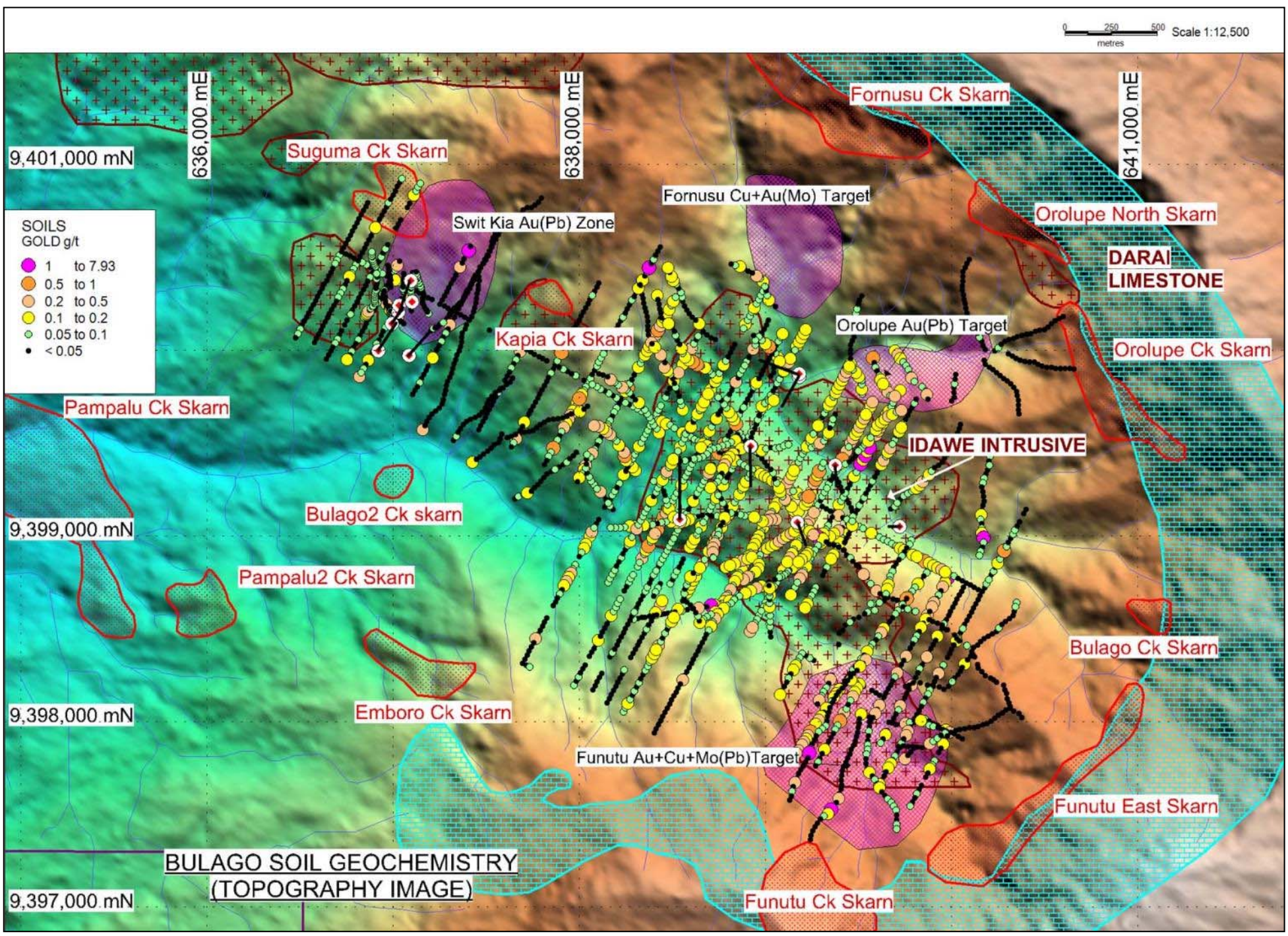



**Figure 8: Gold Soil Geochemistry with Targets and Geology**

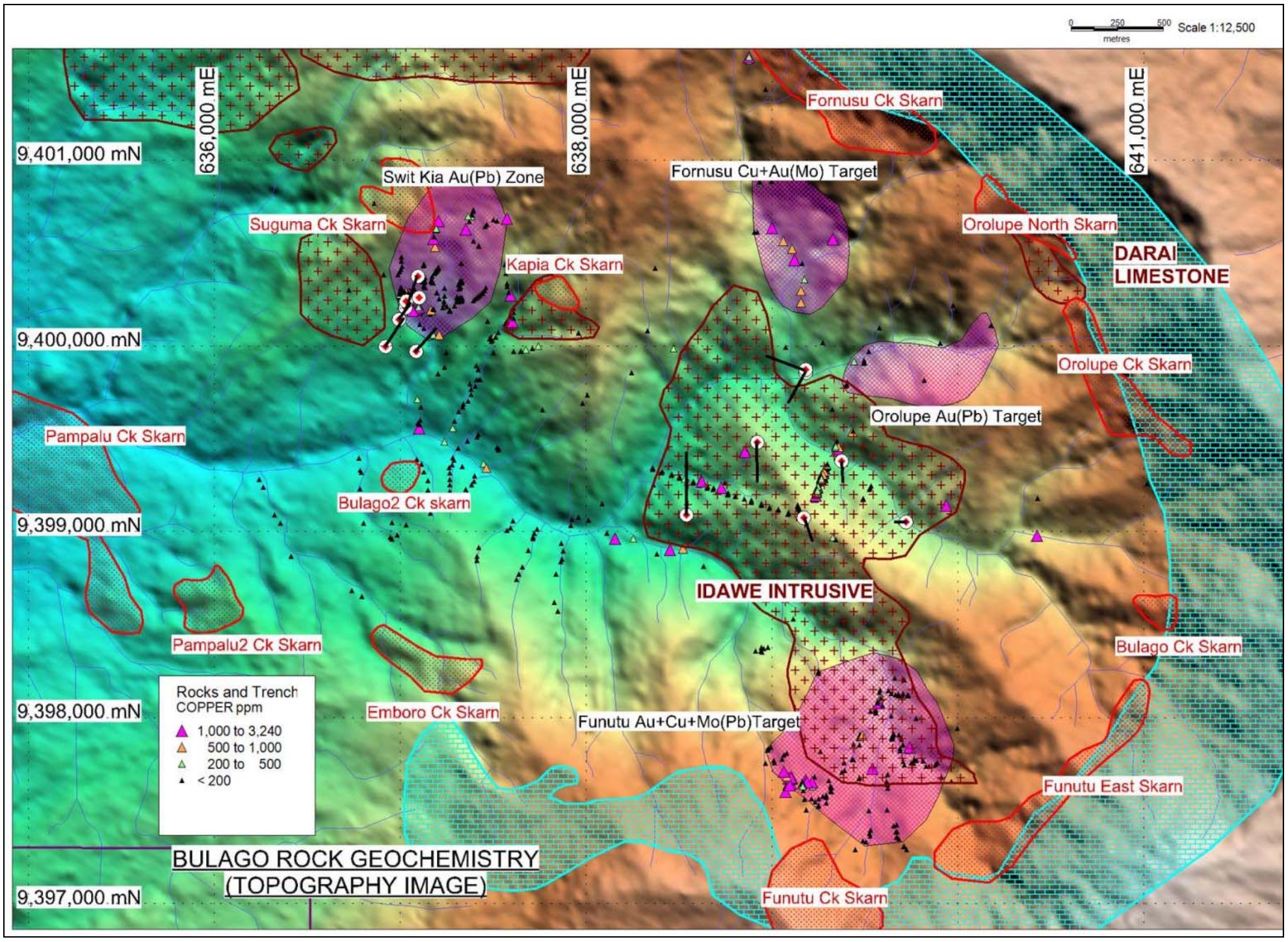



**Figure 9: Gold in Rock Samples Showing Targets and Interpreted Geology**

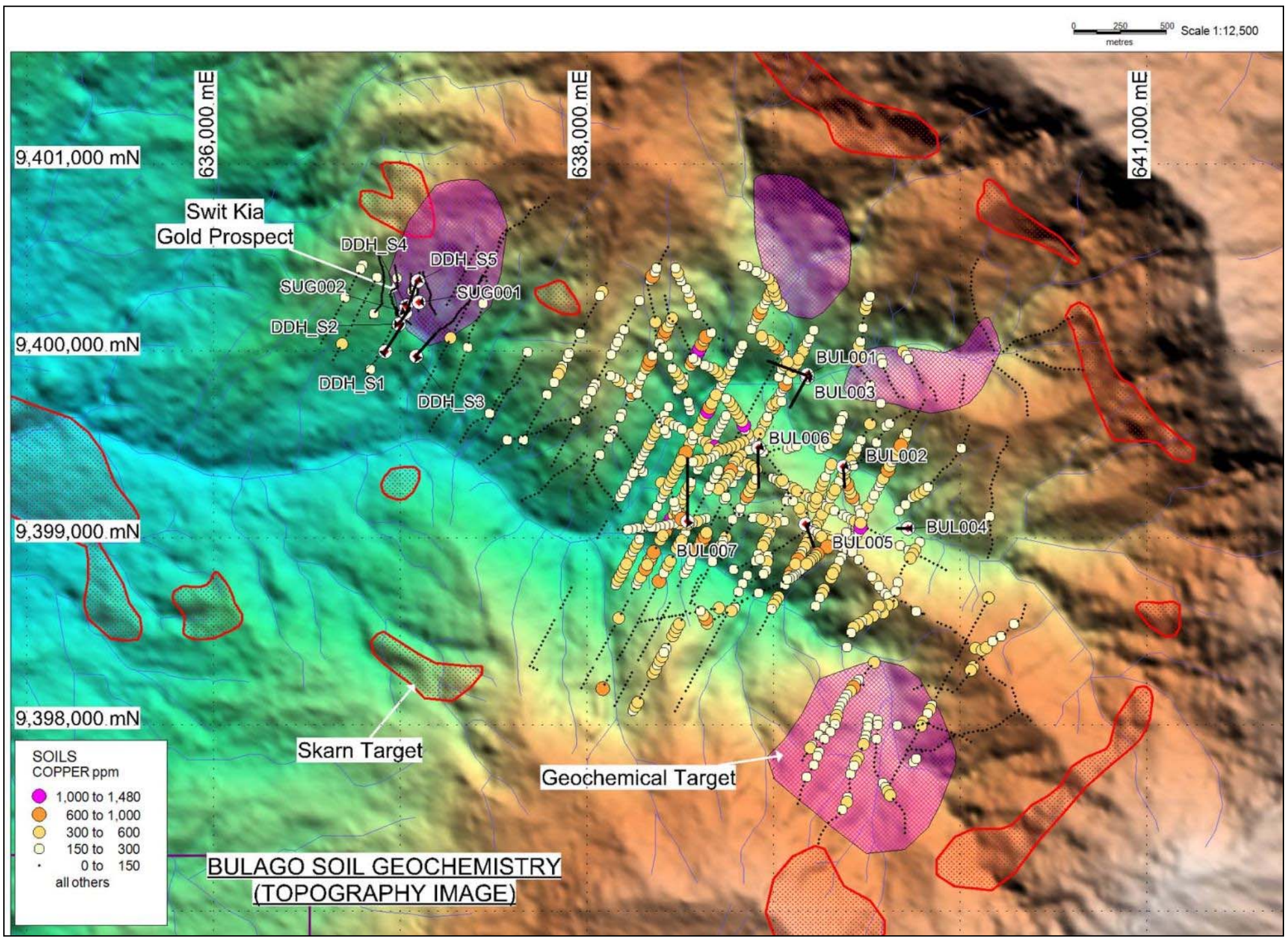



**Figure 10: Copper Soil Geochemistry with Targets and Geology**

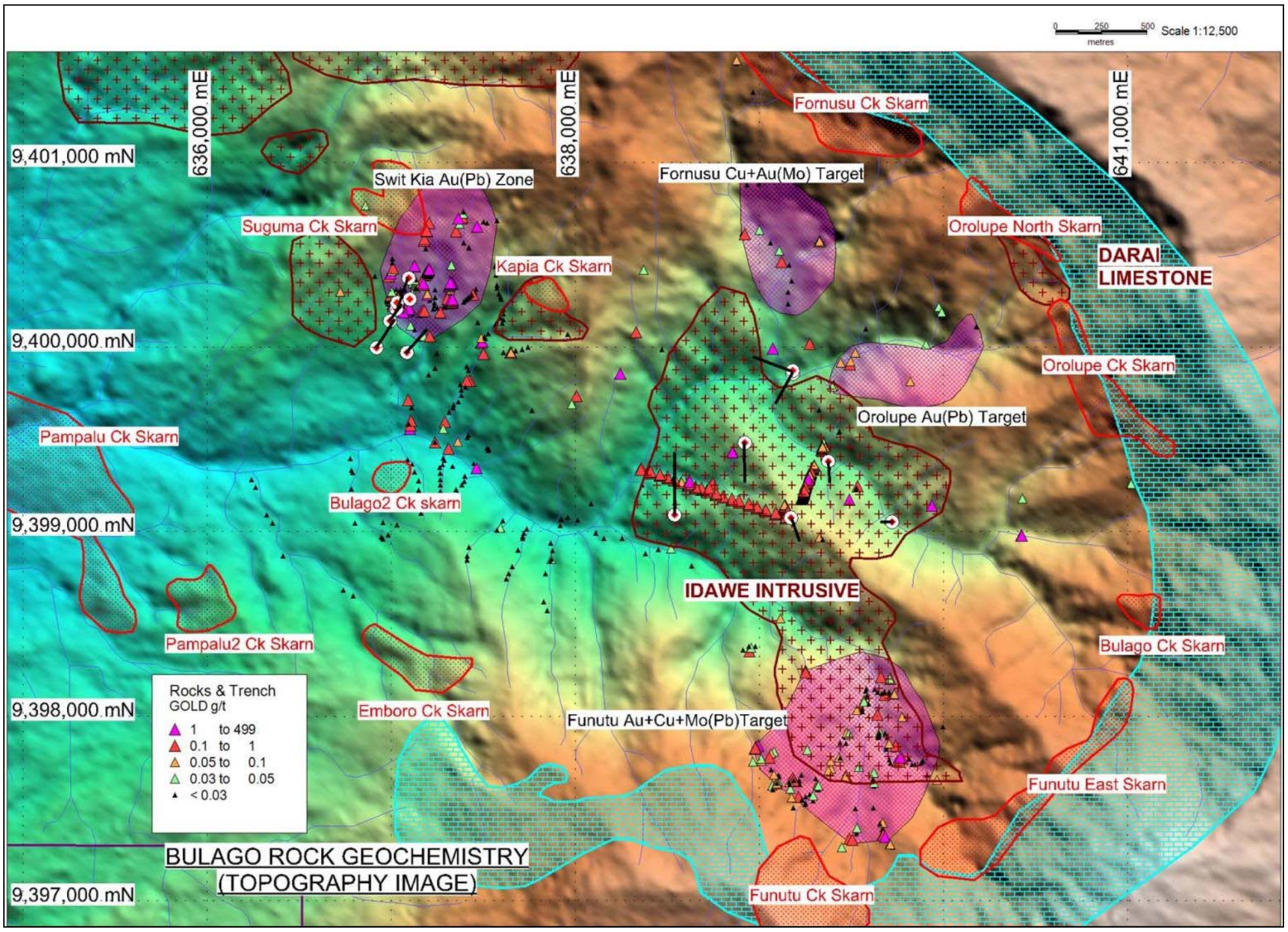



**Figure 11: Copper in Rock Samples Showing Targets and Interpreted Geology**

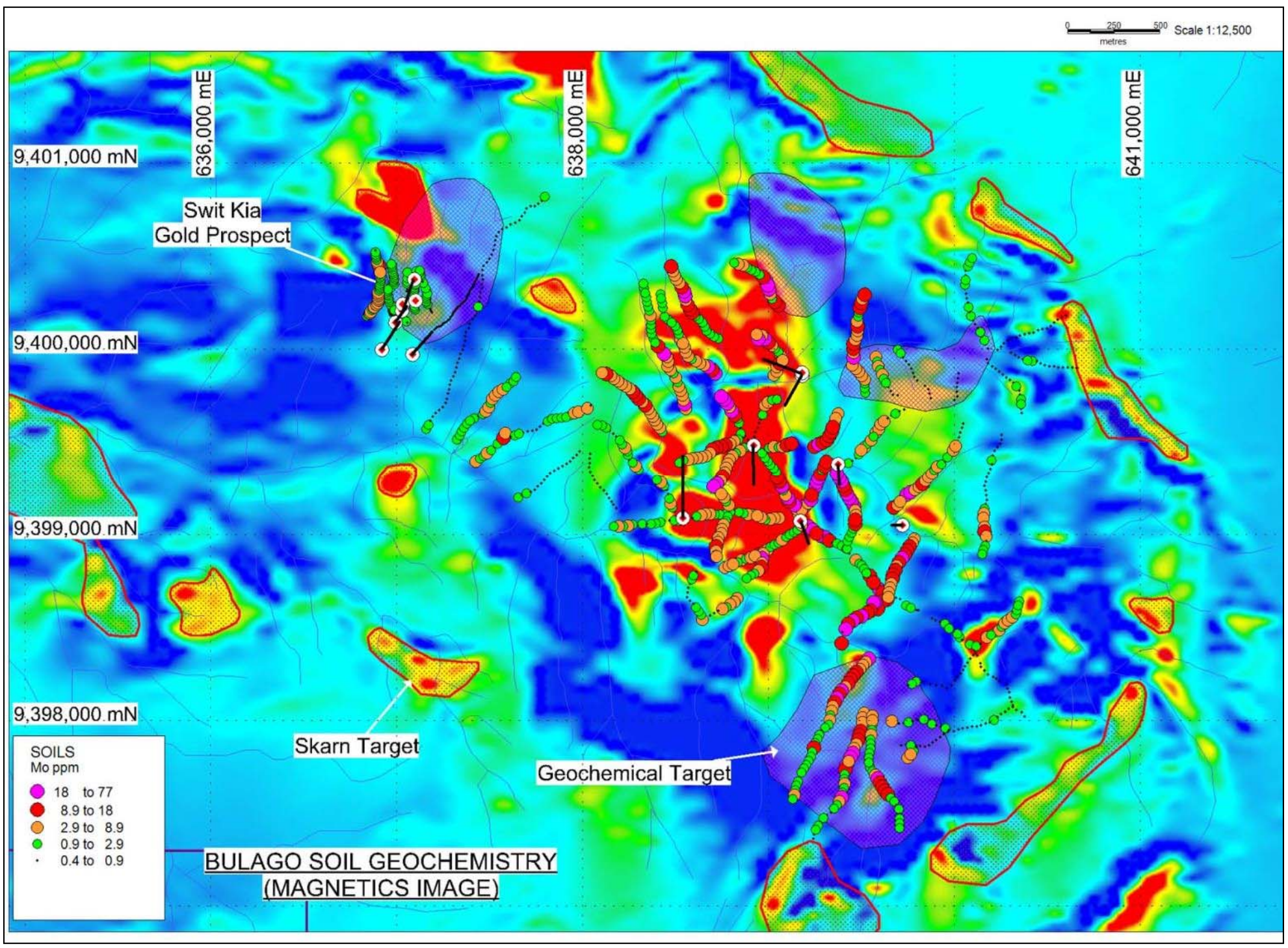



**Figure 12: Molybdenum Soil Geochemistry and Targets on Magnetic Susceptibility Image**

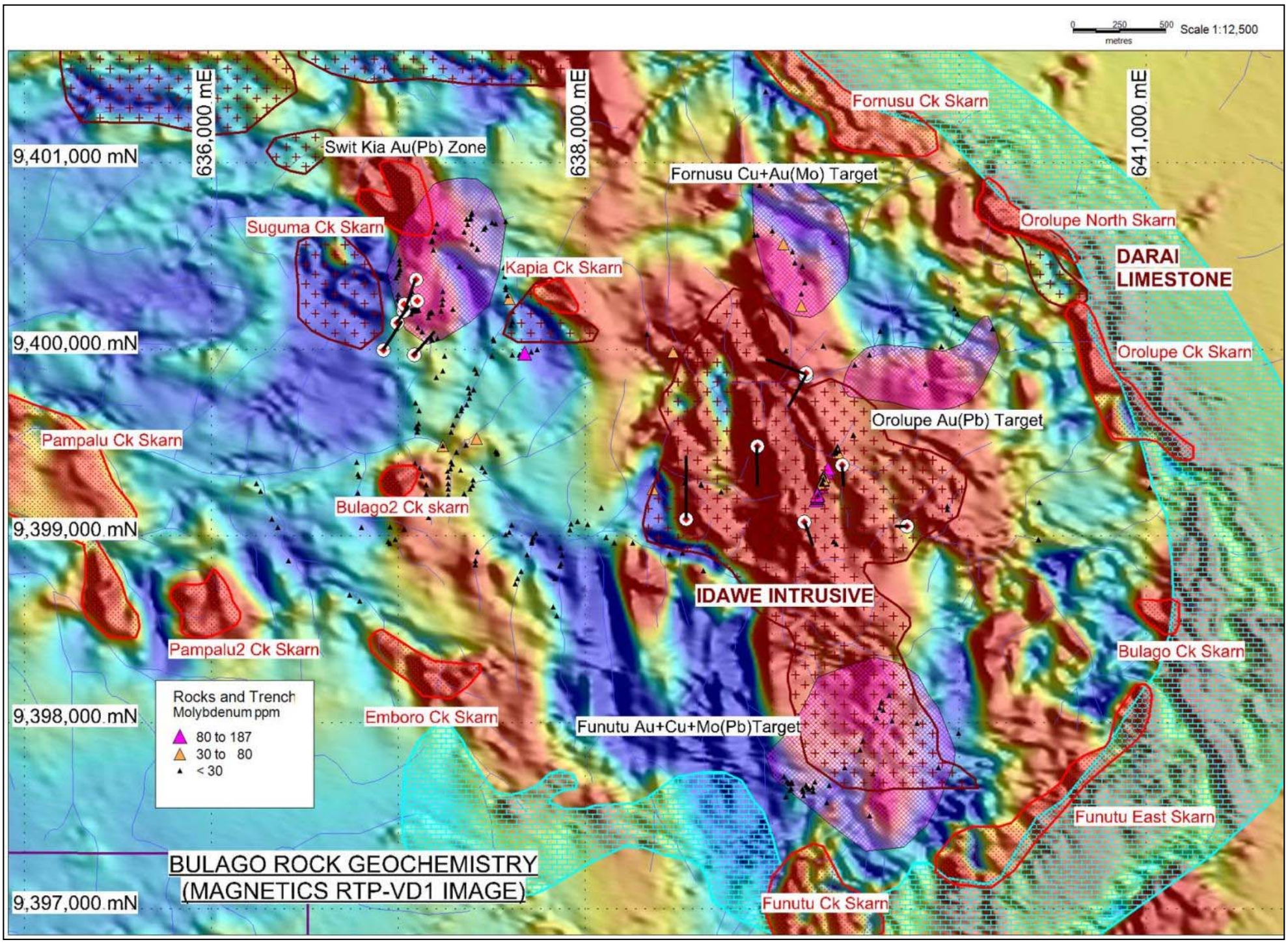



**Figure 13: Molybdenum in Rock Samples on Magnetics (RTP-VD1) Image**

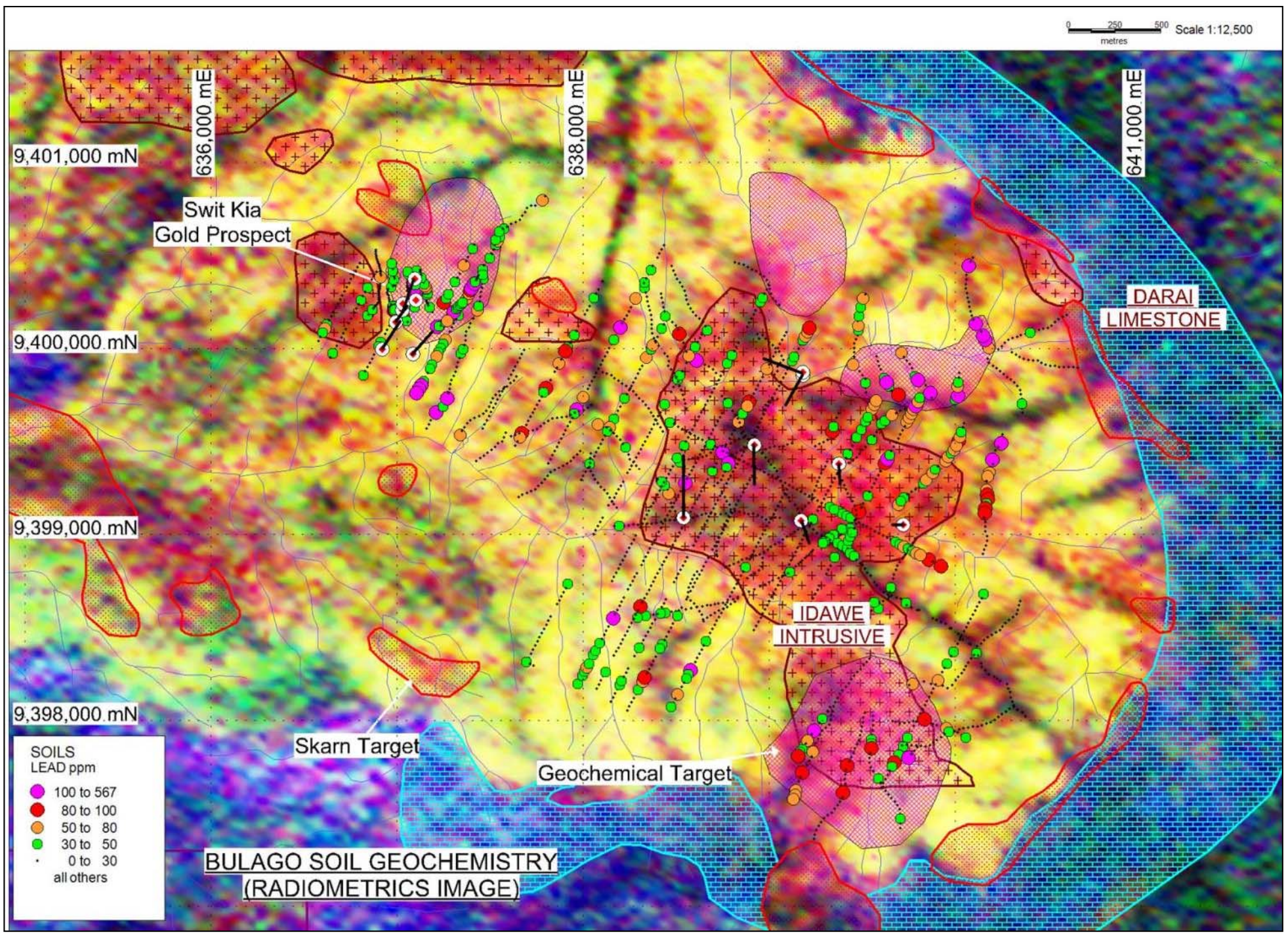



**Figure 14: Lead Soil Geochemistry with Interpreted Geology on Ternary Image**

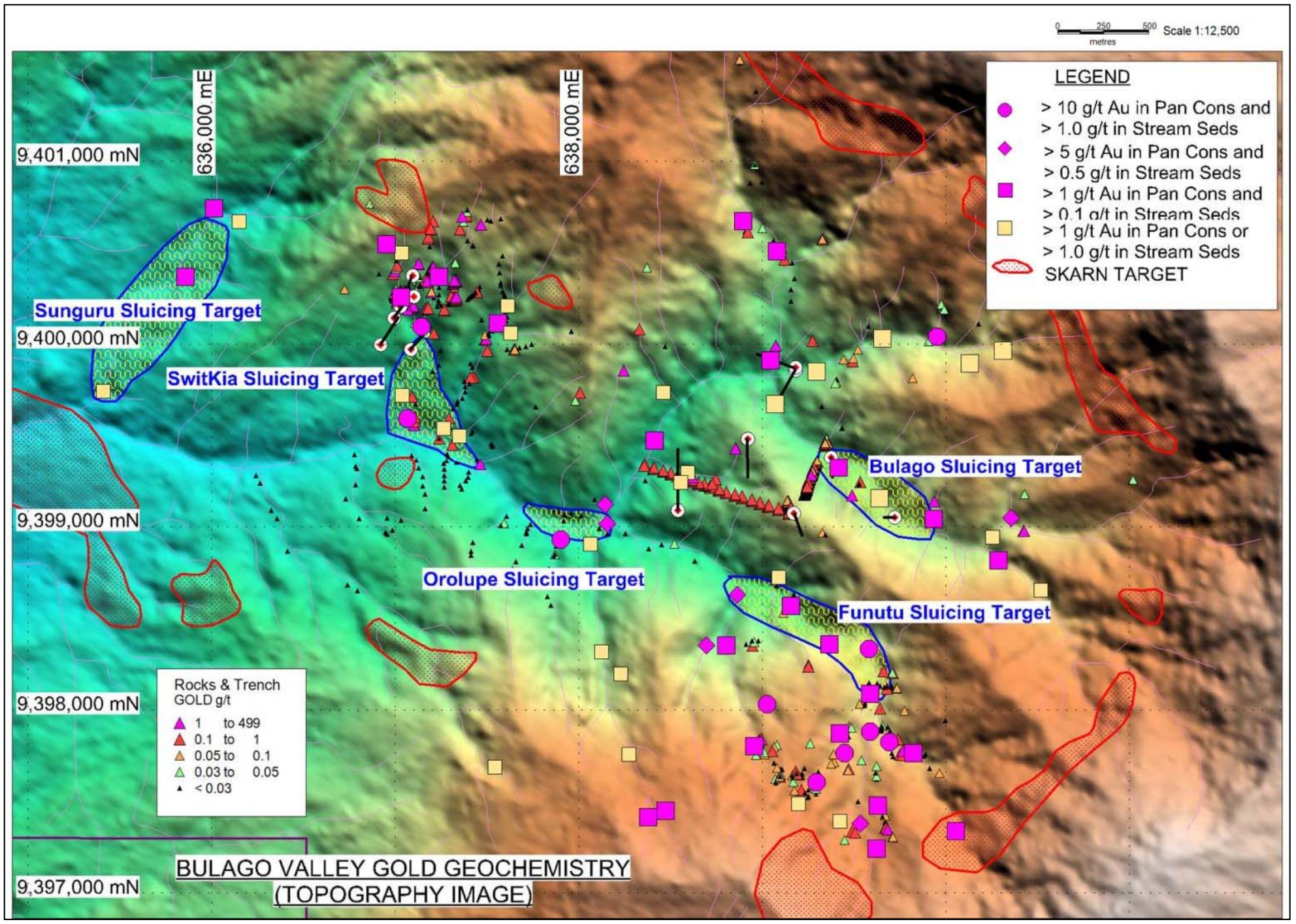



**Figure 15: Stream Gold Geochemistry on Topographic Image**

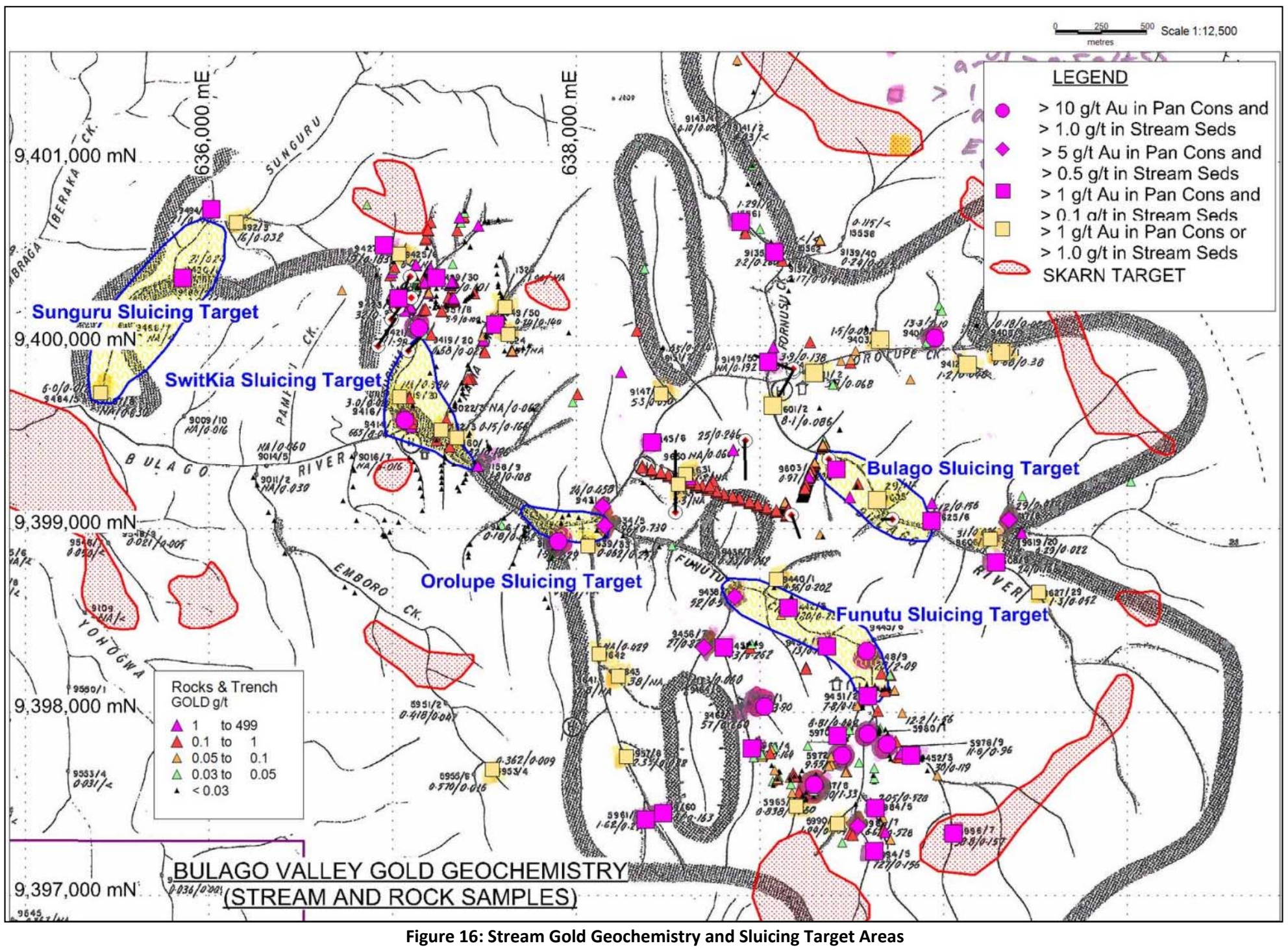



**Figure 16: Stream Gold Geochemistry and Sluicing Target Areas**

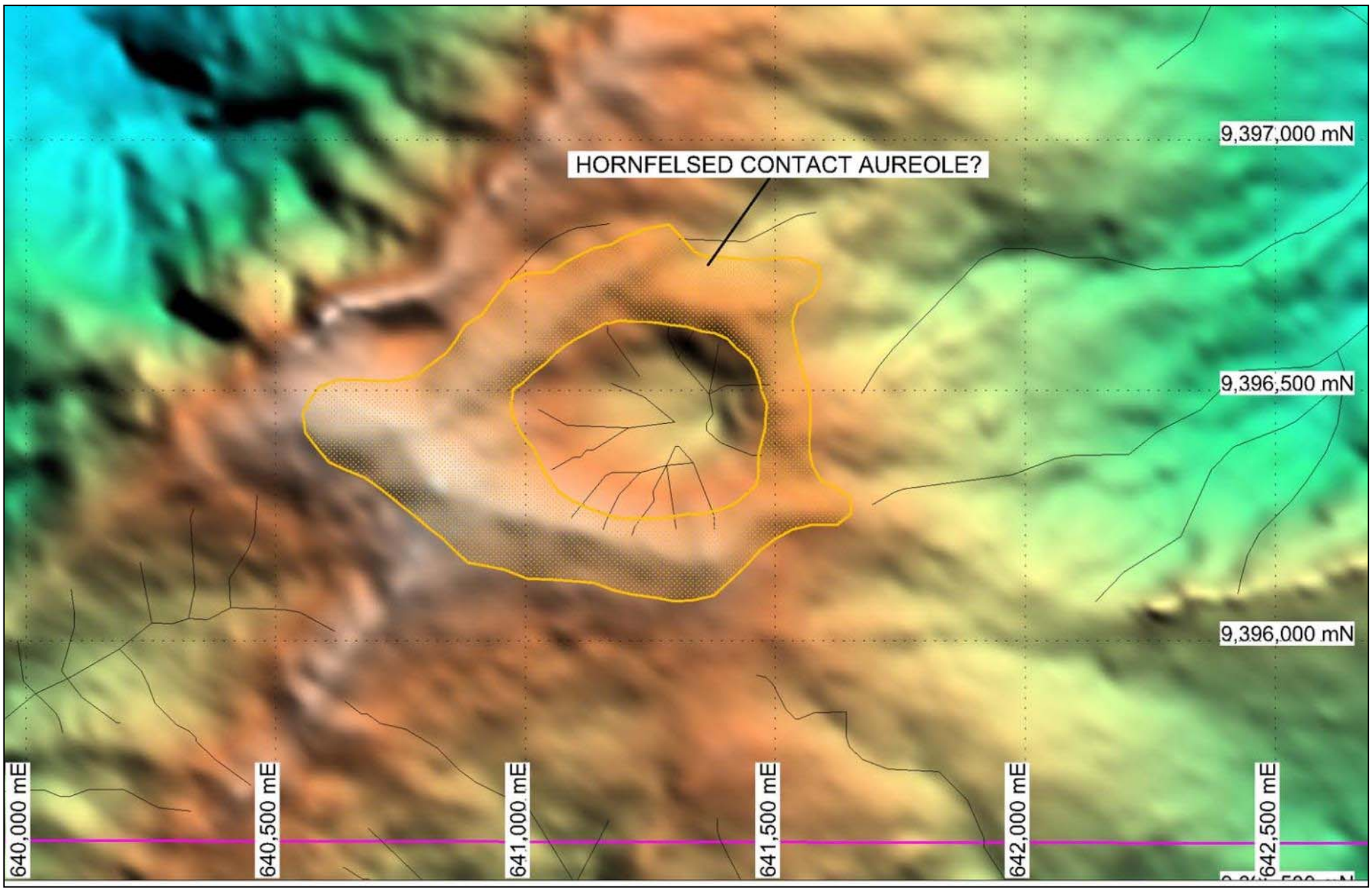



**Figure 1: Topographic Image Showing a Sinkhole**

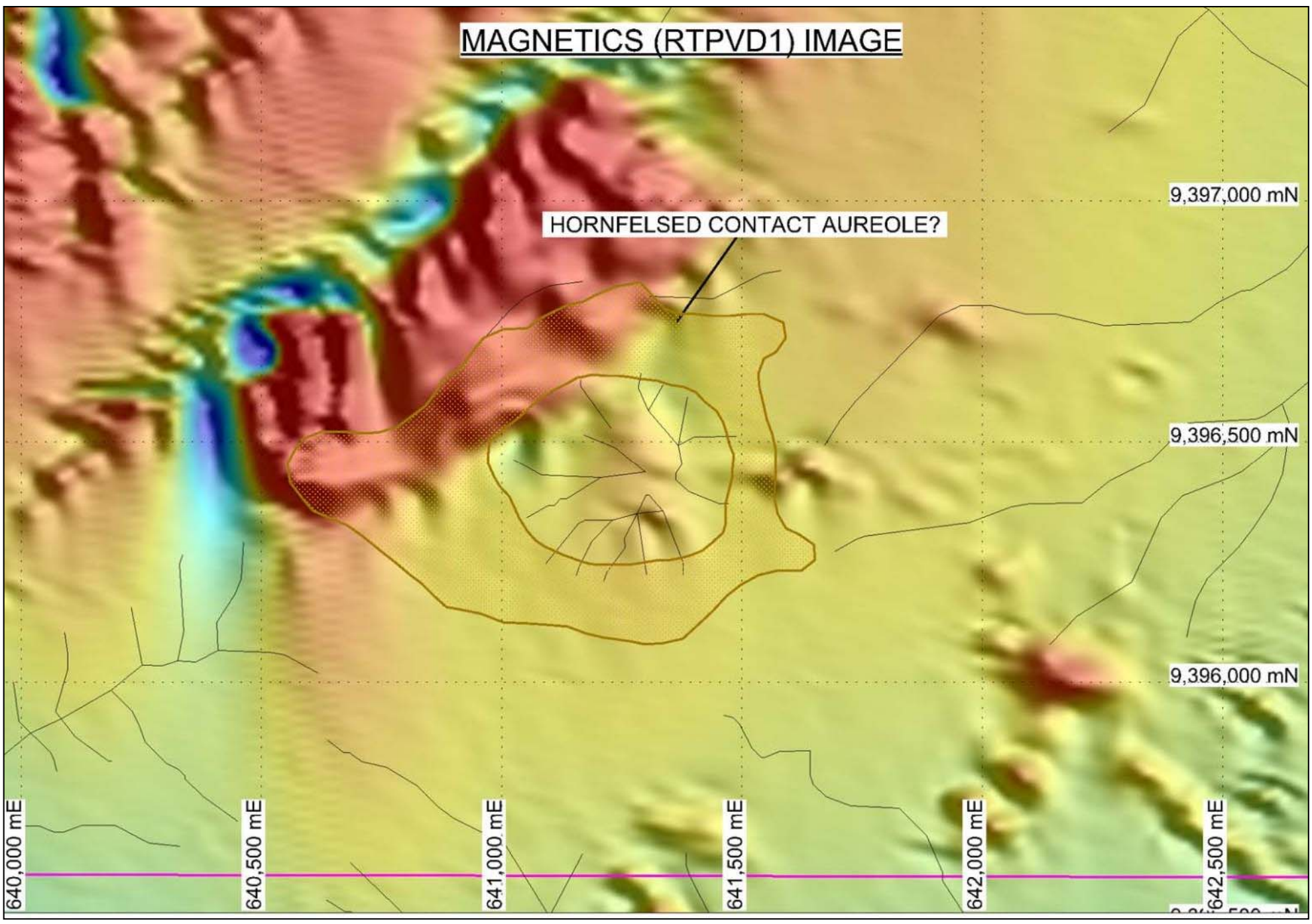



**Figure 18: Magnetics Image over a Sinkhole Target**

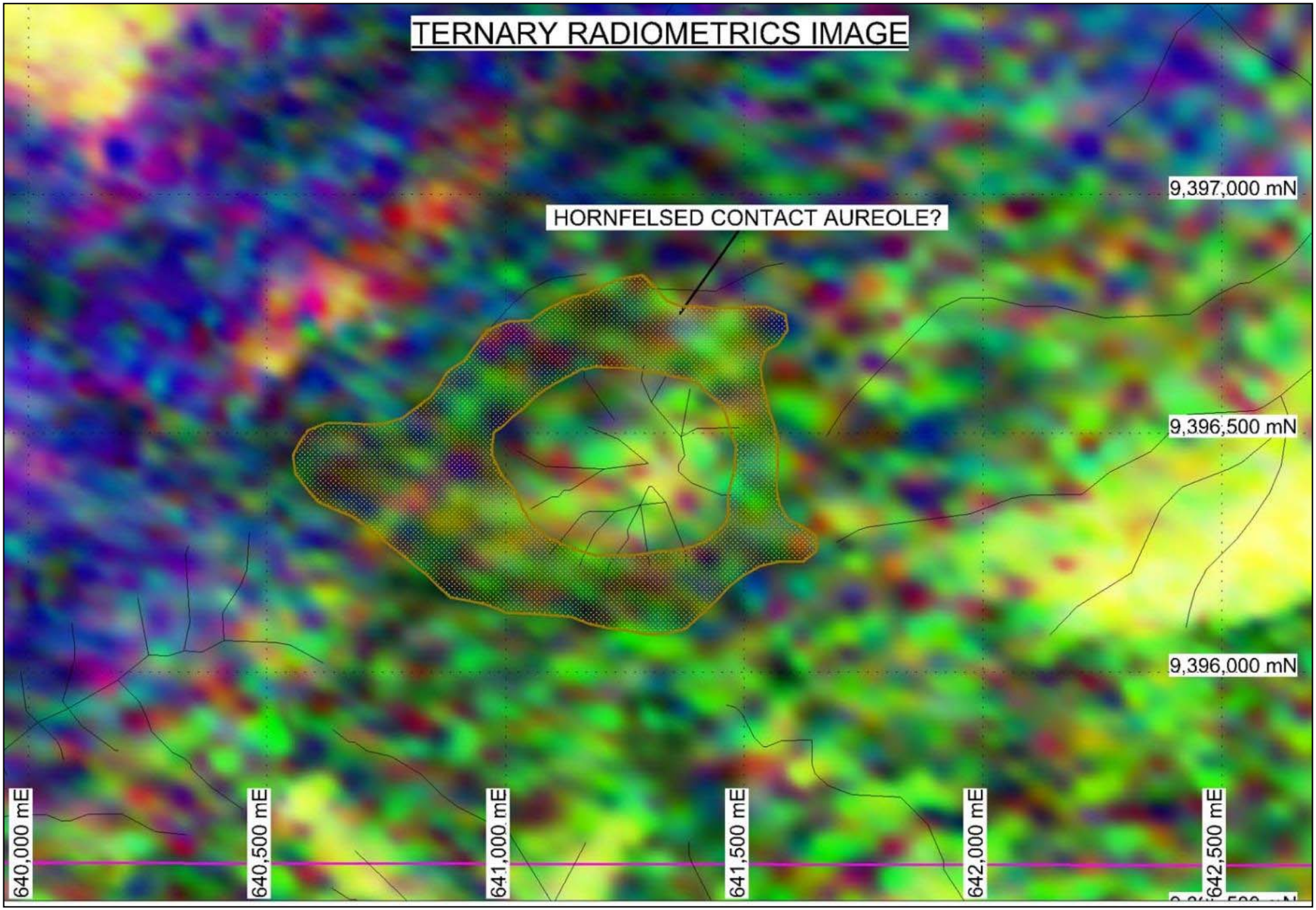



**Figure 19: Radiometrics Image over a Sinkhole target**

The Fornusu copper + gold (molybdenum) Target (Figure 8) occurs next to the northern margin of the Idawe Intrusive complex with anomalous gold and copper (Figure 11) in rock samples. At its south-eastern margin, anomalous molybdenum occurs (Figure 12) which is related to the magnetic contact with the intrusive. The anomalous gold and copper in rock samples need further follow-up sampling.

The Orolupe gold (lead) Target (Figure 8) has anomalous gold in soils samples and gold in rock samples to 0.162 g/t (Figure 9). Being on the north-eastern margin of the Idawe Intrusive, anomalous lead exists in the soil geochemistry (Figure 14), as expected on the margins of intrusive complexes.

Anomalous rock samples of molybdenum (Figure 13) occur in trench sampling within the Idawe intrusive (639240e, 9399200n). Anomalous molybdenum in soils occur throughout the magnetic phases of the Idawe intrusive complex (Figure 12).

The Funutu copper + gold + molybdenum (lead) target area (639600e, 9398000n) covers a 900m diameter area at the headwaters of Funutu Creek, 200m downstream from the Funutu Ck skarn target. Most of the northern extent of this geochemically anomalous target area is within the interpreted Idawe intrusive complex. There is anomalous gold identified from a number of soil lines (Figure 8) and there are numerous anomalous gold in rock samples of up to 3.3 g/t (Figure 9). There are anomalous copper in soil samples (Figure 10) and 15 rock samples contain over 1000ppm copper, up to 1450 ppm copper (Figure 11). Anomalous molybdenum in soil samples are within the Idawe monzonite intrusive complex (Figure 12). Anomalous lead-in-soil samples represent the southern margin of the intrusive complex. An area for possible gold sluicing exists downstream near a historical helipad (639500e, 9398150n).

## 5.0 ALLUVIAL GOLD TARGETS

Alluvial gold mining by local landowners within the drainages of Bulago Valley indicates the possibility for gold sluicing by Frontier Resources to generate income. Four areas have been selected where there is highly anomalous gold collected from historical stream sediment and panned concentrate stream samples. Target areas are selected downstream from gold anomalous sample locations where access is possible in the lower reaches of drainages.

Swit Kia Sluicing Target:
This area is runs 500m along Suguma Creek, 200m downstream from the Swit Kia prospect where significant gold in trench samples were taken by Frontier Resources. The area covers the junction with Funutu Creek and continues 400m upstream along Funutu Creek where a 37 g/t gold in rock sample occurs (637460e, 9399330n). Anomalous gold in stream samples occur both at the junction of Suguma Ck and Funutu Ck and 500m upstream towards Swit Kia (Figure 16). A helipad is marked near the Junction of the two creeks (637090e, 9399480n).

Orolupe Sluicing Target:
This target area is 350m further upstream from the Swit Kia Sluicing Target at the junction between Funutu Creek and Orolupe Creek (Figure 16) where anomalous stream samples were collected (638150e, 9399030n). The target area stretches a further 450m downstream from the creek junction (Figure 15). Alluvial gold from the Idawe intrusive would have been captured along both the Orolupe and Funutu creeks which cut through the monzonite.

Funutu Sluicing Target:
The Funutu Sluicing target occurs over a 1000m stretch of Funutu Creek next to a historical helipad (639520e, 9398150n) and 900m downstream from the Funutu Ck Skarn target. Over ten anomalous gold in creek samples (Figure 15) and other anomalous gold in soils and rock chip samples (Figure 16) occur directly upstream from this target zone. This is an excellent area for significant potential alluvial gold.

Bulago Sluicing Target:
This target zone is between Ok Tedi drillholes BUL002 and BUL004 400m upstream from a historical helipad (639130e, 9399750n). Within the Idawe intrusive complex, this 700m long zone along Bulago River (Figure 16) drains anomalous gold in stream and rock samples below the upper reaches of skarn targets along the escarpment (Figure 15).

## 6.0 SINK HOLE SKARN TARGET

In the southeast corner of the tenement boundary (Figure 7), a 450m diameter circular sinkhole occurs as a depression in the topographic image (Figure 17), proximal to the regional topographic high. An outer 800m diameter topographic halo indicates that the edges may have been 'altered' by an underlying intrusive event, resulting in a halo that has hornfelsed the limestone making it less resistant to weathering.

The inner topographic depression is slightly magnetic (Figure 17) and has slight elevations of potassium (red) and Thorium (green) at its centre (Figure 19). An underlying intrusive within the Darai Limestone may have caused this anomaly which is a target for skarn mineralisation. The target could be initially tested with rock sampling within its core or a drillhole.

## 7.0 CONCLUSION

A total of 14 skarn targets have been identified and require follow-up geological mapping, sampling and drilling. Four areas of anomalous geochemistry, are recommended for additional mapping and sampling for porphyry related mineralisation.

Alluvial gold mining occurs in drainages by local landowners. Four target areas are identified as sites for testing with gold sluicing equipment to determine the viability of alluvial gold mining using low capital expenditure equipment.

A 450m diameter sinkhole topographic feature within the outer escarpment of Darai Limestone has been selected for further ground inspection and sampling. A raised outer elevated topographic aureole is interpreted to be contact metamorphosed and an underlying skarn target is proposed.

It is recommended that the seven drillholes completed by Ok Tedi Mining Ltd within the Idawe intrusive complex be further analysed in cross-section for both geology and geochemistry. The magnetic data is recommended to be modelled in three dimensions and analysed at the identified skarn targets and within the Idawe Intrusive complex.

## ADDITIONAL INFORMATION

Frontier's former joint venture partner – Ok Tedi Mining Ltd undertook a limited amount of modelling on the Funutu skarn and considered drilling it prior to their withdrawal from the JV due to issues between the Sustainable Development Fund that controlled it and the PNG National Government.

Known skarn mineralisation includes an historic float 'boulder' /sample by Kennecott of pyrrhotite (magnetic!) skarn (that was probably sourced from the Funutu Skarn area in the far SE corner of the basin) that assayed 145g/t gold + 11g/t silver + 0.78% copper+ 8.6% zinc + 2.08% arsenic. I have not managed to re-locate this boulder, but that is probably due to the relatively high water level in the river when I was searching.

There are 5 known gold mineralised structural orientations at Swit Kia, including sub-vertical, dip slope and sub-horizontal. Intersections of these mineralised structures will result in plunging high-grade shoots of gold mineralisation that comprise excellent drilling targets.

A 2.62 g/t gold float rock sample was collected in the upper reaches of the eastern branch of Suguma Creek, about 300m north of the main Swit Kia mineralisation. This has not been tracked to source and remains to be followed up. It shows that there is at least one additional mineralised zone to the north of the defined Swit Kia mineralisation and this corresponds to the Suguma Skarn target.

The Ima Zone is located about 400m east of central Swit Kia Prospect in Kapia Creek and represents Swit Kia's strike extension to the east. It corresponds to the Kapia Creek skarn target. The eastern ridge and spur soil line (noted above) did not appear to document a strike extension to Suguma, but an end of line peak assay of 0.16 g/t gold (south of the Swit Kia strike line) represents a discrete new zone of gold mineralisation with associated lead and zinc.

Ima is defined by gold and base metal anomalous stream sediment silt and panned concentrate samples to 0.166 g/t gold and 5.9 g/t gold, respectively. The area is part of the anomalous gold and zinc in stream sediment zone noted for Swit Kia, but it is not anomalous in lead.

Gold in panned concentrate and stream sediment sampling is anomalous to varying degrees with significant intensity all the way up to the headwaters of every creek in the Bulago Valley. It is unusual to have such consistent anomalism in every drainage to the creek's sources and this indicates that gold MUST ALSO be coming from the intrusive /sediment / limestone contact and hence from skarns.

Unfortunately, none of the noted skarn targets have been either grid based or ridge/spur soil sampled, but OTML ridge/spur sampling came close to Funutu and demonstrated 4 zinc soils to the end of the line with >300 ppm zinc, 3 samples with > 50 ppm lead and 1 gold sample >0.2 g/t gold. The associated drainages are strongly zinc (>200ppm) and gold (>1.0g/t in PC and/or >0.1g/t in stream silt) anomalous and moderately coper anomalous (52 to 150ppm).

Funutu is located four kilometres to the SE of Suguma. This prospect is defined by extremely consistent and high-grade gold in stream sediment silt and panned concentrate samples, up to 2.09 g/t gold and 180 g/t gold, respectively.

A significant lead in stream sediment anomaly (>56ppm) occurs proximal to Funutu but to its west, associated with very strong gold anomalous drainages. The zinc/ lead/ gold anomalous stream sediment geochemistry in this area, plus Frontier's grid based soil sampling in the central south of the grid (which still did not extend quite far enough upslope to the south to cover the Skarn anomalies), have significant zinc/ lead and spotty gold anomalies.

This is the same geochemical signature as the Suguma mineralisation, but the coincident gold and base metal anomalies at Funutu are more consistent, stronger and cover a much larger area. This likely reflects more widespread mineralisation and increased prospectivity for the discovery of a potentially economic deposit.

The 1.5sq km area downslope from the Funutu skarn outcrop and to the west contains the strongest, most consistent and coherent area of both panned concentrate and stream sediment assays in the entire EL. Many samples have greater than 10g/t gold in panned concentrate and > 1.0g/t gold in stream sediments.

The Jabaru Prospect has the highest panned concentrate anomalies in the entire Bulago EL and is contiguous with, and located to the WNW of Funutu. The Funutu-Jabaru area is a highly consistent and strong zone of stream sediments and panned concentrate anomalism over a 3km strike length.

No meaningful exploration has previously been conducted at the Funutu Skarn Prospect; it has never been systematically mapped, outcrop rock or soil sampled, trenched or drilled.

Downslope from the Funutu skarn outcrop, Equatorial gold discovered a 50m wide mineralised zone in intrusive with narrow veins that returned up to 20cm grading 197g/t gold + 363 g/t silver + 0.55% copper + 5.5% lead + 5.7% zinc, also 73.0g/t gold (repeat = 108g/t) + 200g/t silver + 0.38% copper + 2.63% lead + 4.8% zinc and 34.4g/t gold + 120g/t silver + 0.86% lead + 1.71% zinc. These assays are similar to the Kennecott boulder but the lack of silver in the later; also the narrow nature of these outcrop samples indicates the boulder came from elsewhere and probably upslope. Frontier failed to re-locate this particular zone in 2009, but Ok Tedi sampled it and confirmed similar grades.

Frontier in 2009 located highly mineralised skarn outcrop and float in the headwaters of Funutu Creek, just to the south of Funutu Prospect, proving the existence of in-situ skarn mineralisation. The skarn mineralisation consisted of massive sphalerite (zinc) and galena (lead), plus lesser chalcopyrite (copper). Massive magnetite (iron) skarn was also located. The photo shows a rock specimen from a semi massive sulphide outcrop that assayed 0.3m of 2.85 g/t gold + 230 g/t silver + 1.0% copper + 8.29 % zinc + 6.64 % lead.

Ok Tedi sampled 73 intrusive rocks in the Funutu Skarn region (virtually all downslope or to the east of the magnetic anomaly), but only 1 sample of skarn that didn't return any significant assays. The peak outcrop

rock chip was sericite altered and oxidised, with 7.93g/t gold + 19.9g/t silver + 169 ppm arsenic + 15ppm antimony, but low base metals. Another assayed 3.06 g/t gold with little else and 4 other samples assayed > 0.1 g/t gold.

In addition, limited historic R/S soil sampling by Esso demonstrated widespread zinc + arsenic and with more localised gold and copper anomalism in the Jabiru region, suggesting that another skarn is present between the defined Funutu and Emboro Skarns.

The Funutu East Skarn has only 3 samples in the first associated drainage with a peak assay of 0.447g/t gold (+ little else) and further NE in the main drainage, 2 of 3 samples collected further confirmed the possibility of significant mineralisation, with assays of 2.03g/t gold + 3g/t silver + 0.69% zinc and also 0.44g/t gold.

Three samples were collected by OTML in the headwaters of the Fornusu creek (in the central north), close to the skarn target, with a best result of 0.11% copper + 2.4 g/t silver. The samples were not described.

Downslope from the Orolupe North Skarn is a small historic Kennecott zinc and gold ridge /spur soil anomaly.

**MULLER DETAILS**

A schematic of the island of New Guinea (from Barrick Gold Corp- Figure 20) shows the most prospective arc for major mineralisation is on the southern fall of the mountainous spine of PNG from OK Tedi through Bulago, the Muller Range EL and on to Crater Mountain at the eastern end.

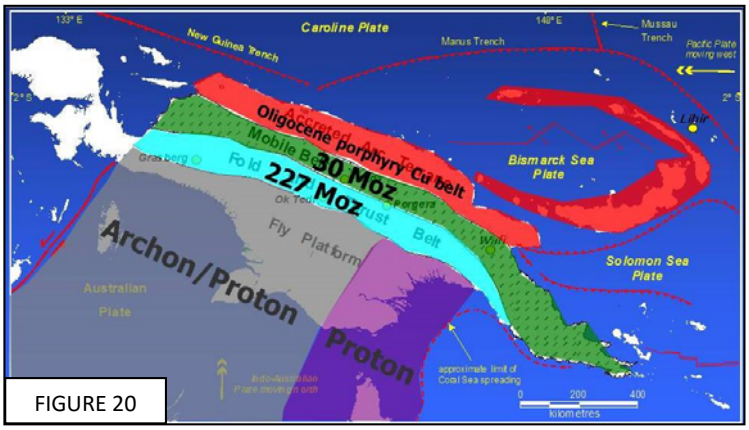


FIGURE 20

Frontier considers this structural zone to be the best geological address to discover very large gold and copper deposits in PNG.

The Baia Project (Figure 21) is a large porphyry system that strongly warrants exploratory drilling, with a copper - gold - molybdenum in soil anomaly, a small skarn and the correct geochemical, geological and structural characteristics such as:

- The copper in soil geochemistry demonstrates a distinct cohesive anomaly that is about 900m long north- south and about 600m wide east -west. There are three smaller, but still large, copper anomalies that are about 500m long and up to 200m wide.
- The contoured zinc and lead soil geochemistry at Baia Prospect demonstrates a typical zinc/ lead halo around a 1,200m diameter core to the porphyry copper system which is approximately coincident with the outer margins of the copper anomaly. The zinc/ lead anomaly has a width of about 500m and an outer annulus diameter of about 2,200m.
- Dominant alteration is propylitic, with structurally controlled phyllic and patchy un-mineralised potassic.
- The prospect is located on a topographic high in a major ENE trending fault zone/ transfer structure (as per the OK Tedi Mine).

The Cecilia Prospect can be rapidly advanced to drill testing with additional surface exploration. It has demonstrated:

- Stream sediment geochemistry >250ppm copper and altered rock chip samples returned 0.616g/t gold and 0.12 g/t gold + 710ppm copper. Altered granodiorite float assayed 0.18% copper, with chalcopyrite and bornite and others up to 0.62% copper.

- High sulphidation epithermal advanced argillic alteration, with vuggy quartz- alunite-pyrophyllite, but no significant gold noted in follow-up.

- Strong argillic and propylitic alteration, which has been covered by a recent agglomerate and pebble dykes are common, indicating a probable buried porphyry copper-gold-molybdenum target.

For plans and further information on the Baia and Cecilia River Prospects, refer to Frontier's Quarterly Report dated 13th April 2015.

Releases will be submitted to the ASX when possible regarding recently completed data evaluations at Bulago and the Tingi porphyry copper-gold Prospect in the Muller EL.

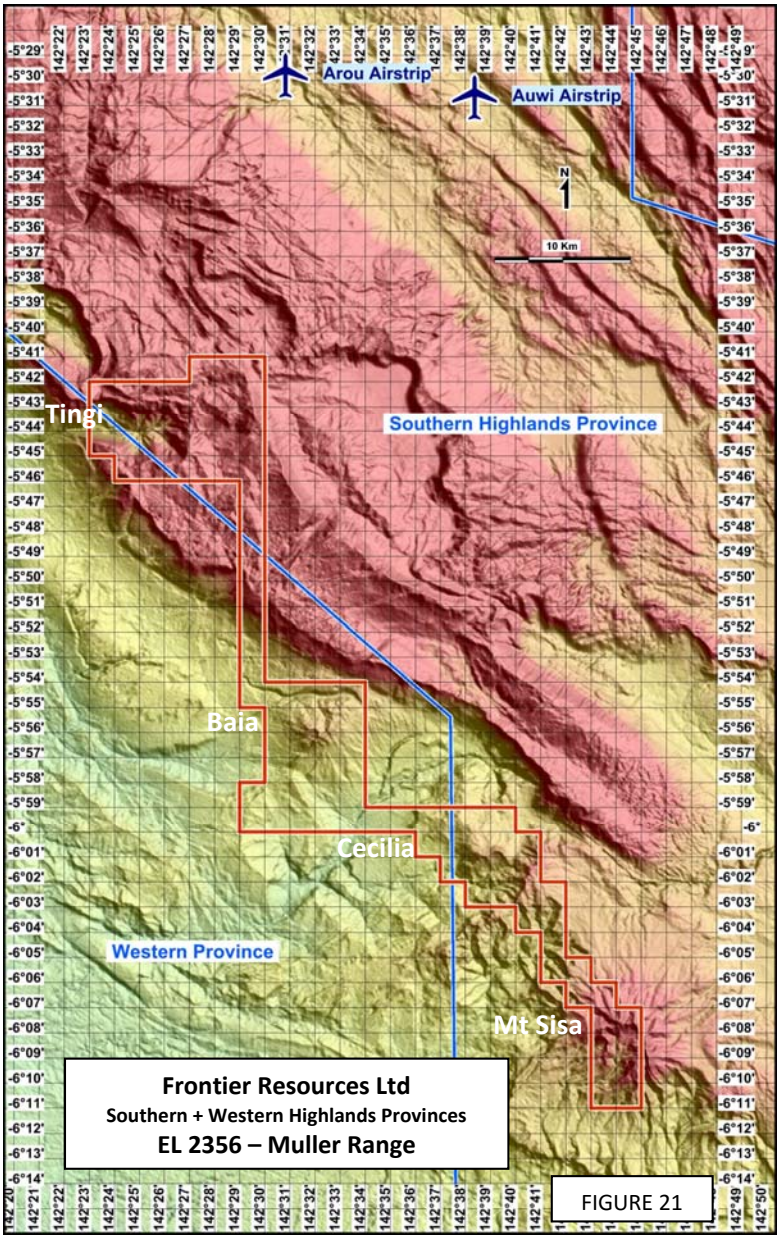


FIGURE 21

**FRONTIER RESOURCES LTD**

P.A.McNeil, M.Sc., MAIG
Chairman and Managing Director

**Competent Person Statement:**

The information in this report that relates to Exploration Results is based on information compiled by, or compiled under the supervision of Peter A. McNeil - Member of the Aust. Inst. of Geoscientists. Peter McNeil is the Managing Director of Frontier Resources, who consults to the Company. Peter McNeil 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 McNeil consents to the inclusion in the report of the matters based on the information in the form and context in which it appears.

**Frontier Resources Ltd Exploration Licence Information**

| | Licence No. | Date From | Date To | Ownership | Area (SQ KM) | Lat. Sub Blocks |
|---|---|---|---|---|---|---|
| **Bulago River** | EL 1595 | 7/07/2014 | 6/7/2016 | 100% Frontier Gold PNG Ltd | 100 | 30 |
| **Muller Range** | EL 2356 | 31/12//2015 | 30/12/2017 | 100% Frontier Copper PNG Ltd | 330 | 99 |
| **Stormont Mine** | ML 1/2013 | 3/11/2013 | 13/08/2018 | 5% Nett Profits Interest Frontier -Torque Mining Ltd | 0.13 | NA |
| | | | | | **430** | **SQ KM** |

NB: The Papua New Guinea Mining Act of 1992 stipulates that ELs are granted for renewable 2 year Terms (subject to Work and Financial 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.

Information is provided to comply with the JORC Code (2012) requirements for the reporting of previous exploration trenching and drilling results for Exploration Licence (EL) 1595 in Papua New Guinea.

| JORC CODE 2012 | | | |
|---|---|---|---|
| **Section 1 -- Sampling Techniques and Data** | | | |
| **Criteria** | | **Explanation** | **Commentary** |
| ***Sampling techniques*** | o | 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 whole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling. | The drill collar was surveyed (averaged) utilising a handheld GPS, with reference to topographic maps etc. Logging normally included mineralisation, lithology, weathering, alteration, structure and texture. Sampling protocols and QAQC are as per industry best practice procedures. |
| | o | Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. | Standard industry practice sampling procedures were followed. |
| | o | Aspects of the determination of mineralisation that are Material to the Public Report.<br><br>In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 11m samples from which 3 kg was pulverised to produce a 30g 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. | Swit Kia core samples were collected in plastic trays, photographed, assessed, saw split to half or quarter core and sampled as indicated by the geologist. Parts of metres, single and multiple metres relative to the intensity of mineralisation and alteration exhibited. The samples were driven to Lae Papua New Guinea for preparation by Laboratory SGS Australia Pty Ltd, then analysed in Townsville by fire assay (50g charge) for gold and ICP for copper, molybdenum, silver, lead, zinc, arsenic, antimony and other elements. Samples were collected in calico bags for despatch to the laboratory. Sample preparation was in 3-5kg pulverising mills, followed by splitting to a 140g pulp which was analysed by 50 gram Fire Assay and Inductively Coupled Plasma Optical (Atomic) Emission Spectrometry Multi-acid digest incl. Hydrofluoric, Nitric, Perchloric and Hydrochloric acids. |
| ***Drilling techniques*** | o | Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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.). | Triple tube HQ core drilling. No orientations (no tool) or downhole surveys (too short to be of significance at this stage of exploration). |
| ***Drill sample recovery*** | o | Method of recording and assessing core and chip sample recoveries and results assessed | Paper logs translated to digital. |
| | o | Measures taken to maximise sample recovery and ensure representative nature of the samples. | No drilling meterage bonus paid and we aim for 100% core recovery. |
| | o | 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. | No. |
| ***Logging*** | o | 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. | Yes. |
| | o | Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. | Geological logging was quantitative in nature. Core was photographed. |
| | o | The total length and percentage of the relevant intersections logged | 275.3m |
| ***Sub-sampling techniques and sample preparation*** | o | If core, whether cut or sawn and whether quarter, half or all core taken. | Sawn and both half and quarter core was sampled. |
| | o | If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry. | |
| | o | For all sample types, the nature, quality and appropriateness of the sample preparation technique. | Half and quarter core was sampled. |
| | o | Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. | No sub sampling. |
| | o | 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. | Half and quarter core was sampled generally on a lithological basis |
| | o | Whether sample sizes are appropriate to the grain size of the material being sampled. | Appropriate |
| ***Quality of assay data and laboratory tests*** | o | The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. | Assaying techniques utilised can be considered to be appropriate. For the ICP analyses, the technique is considered to be 'total'. Over-range elements were run to determine their actual values. |
| | o | 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. | Acceptable levels of accuracy and precision were established with duplicate and repeat analyses by the laboratory. |
| | o | 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. | No such tools used. |

| | | | |
|---|---|---|---|
| ***Verification of sampling and assaying*** | o | The verification of significant intersections by either independent or alternative company personnel. | Verified by Consultant Geologists J.Kirakar and K.Igara. |
| | o | The use of twinned holes. | No holes have been twinned. |
| | o | Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. | Primary data was collected manually then loaded into the database. |
| | o | Discuss any adjustments to assay data. | No adjustments/calibrations have been made to assays. |
| ***Location of data points*** | o | Accuracy + quality of surveys used to locate drill holes (collar + down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. | Not applicable. A hand held GPS (waypoint averaged) was used to determine drill collar locations. |
| | o<br>o | Specification of the grid system used.<br>Quality and adequacy of topographic control. | Map datum is AGD 066.<br>40m contours - 1:100,000 plans, 20m -SRTM contours and 10m – DTM contours. |
| ***Data spacing and distribution*** | o | Data spacing for reporting of Exploration Results. | Refer to the attached plans for details relating to the data spacing of exploration results. |
| | o | 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 | The current data spacing and distribution is insufficient to establish the degree of geological and grade continuity that is appropriate for the Mineral Resource and Ore Reserve estimation. |
| | o | Whether sample compositing has been applied. | No sample compositing has been applied. |
| ***Orientation of data in relation to geological structure*** | o | Whether the orientation of sampling achieves unbiased sampling of possible structures to the extent this is known, considering the deposit type. | The orientation of sampling achieves unbiased sampling of possible structures to the extent to which this is known, considering the deposit type and outcrop available to sample. |
| | o | 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. | The relationship between the drilling orientation and the orientation of key mineralised structures is not considered to have introduced any sampling bias. |
| ***Sample security*** | o | The measures taken to ensure sample security | Samples are retained by Company personnel until they were despatched at the Lae laboratory. There are no issues with sample security or chain of custody. |
| ***Audits or reviews*** | o | The results of any audits or reviews of sampling techniques and data. | No specific audits or reviews of sampling techniques and data have been undertaken. |

| **Section 2 -- Reporting of Exploration Results** | | | |
|---|---|---|---|
| **Criteria** | | **Explanation** | **Commentary** |
| ***Mineral tenement and land tenure status*** | o | 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. | Exploration Licence (EL) 1595 - Bulago is located in Papua New Guinea's Hela Province and EL's are regulated under the Mining Act of 1992 (currently under review). There no agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and/or environmental issues associated with the EL.<br>The PNG National government under the Mining Act of 1992 currently has the right to acquire up to 30% of any project at the time of granting of a mining lease for the 'sunk cost'. |
| | o | 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. | The tenement is in good standing. No known impediments exist apart from the geographic isolation and the necessity for creating and maintaining good relationships with amicable, strongly development minded local landowners. |
| ***Exploration done by other parties*** | o | Acknowledgment and appraisal of exploration by other parties. | Exploration in the region was initiated in the late 1960s as part of a PNG porphyry copper deposit search. It was explored for gold initially in the early'/mid 1980's, with little work since 1988, except for FNT (+OTML JV). |
| ***Geology*** | o | Deposit type, geological setting and style of mineralisation. | High grade gold intrusive -epithermal related targets, higher grade gold -silver-zinc-lead magnetite skarns and porphyry copper-gold - molybdenum targets. |
| ***Drill hole information*** | o | 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: | Previously released. |
| | | Easting and northing of the drill hole collar | Previously released. |
| | | Elevation or RL (Reduced Level- elevation above sea level in metres) of the drill hole collar | Previously released. |
| | | Dip and azimuth of the hole | Previously released. |
| | | Down hole length and interception depth | Previously released. |
| | | Hole length | Previously released. |
| | o | 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. | |

| | | | |
|---|---|---|---|
| ***Data aggregation methods*** | o | In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated. | Tables of results included show data aggregation if applied in trench/channel samples etc. No top cuts were applied. They are continuous samples and so are stated as continuous weighted assay results (length x grade summed for each sample / sum of total length). |
| | | 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 | If this occurs, it is stated in the text. |
| | o | The assumptions used for any reporting of metal equivalent values should be clearly stated. | No metal equivalent values are reported. |
| ***Relationship between mineralisation widths & intercept lengths*** | o | These relationships are particularly important in the reporting of Exploration Results. | |
| | o<br><br>o | If the geometry of the mineralisation with respect to drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known'). | |
| ***Diagrams*** | o | 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. | Appropriate maps, sections and tabulations of intercepts has been previously completed and released. |
| ***Balanced reporting*** | o | 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. | Comprehensive reporting of Exploration Results has been previously completed and released. |
| ***Other substantive exploration data*** | o | 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 | All meaningful exploration data has been included in previous releases. |
| ***Further work*** | | The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. | Additional drilling will be dependent on a successful future capital raising. Appropriate plans will be included, where possible in a later release documenting Board approved future work programs |