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Announcement

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SUGUMA PROSPECT AND BULAGO REGION HISTORIC EXPLORATION AND CURRENT PROGRAM INFORMATION

Frontier Resources Ltd is pleased to announce that mobilisation to Suguma for the EL 1595 - Bulago exploration program was completed yesterday.

Chairman/ Managing Director Peter McNeil is supervising the program on-site, that will concentrate on the Suguma Prospect Upper Horizon and several other high to very high grade gold mineralised occurrences.

The objective to demonstrate the tenor, location and lateral extent (if/ where possible) of the multiple occurrences and orientations of gold mineralisation noted in the table below, utilising innovative surface sampling techniques to produce unequivocal assay results.

Reconnaissance channel chip outcrop sampling in late 2009 (the last Frontier program field supervised by the Chairman) demonstrated very high grades of gold in two discrete horizons in outcrop within the Central Creek Zone, plus at multiple other localities. The table below lists the individual assay results from the Upper Horizon.

Table 1. Suguma Prospect Rock Chip Channel, Grab and Float Assay Highlights

Sample Length	Gold (g/t)	Silver (g/t)
27.0m	67.8	25
incl. 12.0m	138.0	49
18.0m	40.3	32
incl. 12.0m	79.1	31
7.5m	67.0	42
incl. 4.5m	92.7	52
9.0m	24.0	45
incl. 3.0m	69.0	97
4.0m	135.6	105
4.0m	36.4	35
6.0m	21.1	20
10.0m	14.3	25
incl. 2.0m	48.3	61

The Upper Horizon:

- Assayed 66.8 g/t gold + 25 g/t silver over 27 metres (including 138 g/t gold + 49 g/t silver over 12 metres)
- The composite channel samples were collected approximately north–south (up the creek).
- Former JV partner Ok Tedi (OTML) sampled only the 'southern' part of the Upper Gold Horizon and hence it is a shorter intercept being 18m grading 16.5 g/t gold + 10 g/t silver + 0.32% zinc. Their sampling appears to have the same start location as Frontier's channel sampling, which when re-calculated equates to 18m of 13.5 g/t gold + 9 g/t silver, which is very similar in tenor of both gold and silver. This would mean that the next interval to be sampled <u>should</u> have been the 9m of 173 g/t gold + 60 g/t silver (as sampled by Frontier).
- The width of mineralisation is open to the north with the final 3 metre channel sample grading 161 g/t gold + 47 g/t silver.
- Strike extent appears to be >160 metres to the east.
- The continuous chip outcrop samples were collected where possible by their exposure and orientation and do not necessarily represent true widths of mineralisation.
- OTML's angled drill hole proved that significant high grade gold mineralisation does not extend to their intercept point approx. 200m vertically below the outcrop, however, lower grade and narrow gold mineralisation was intersected.

The 'Lower Horizon' is located 50m south of the Upper Horizon and Frontier's sampling /assaying returned 18 metres grading 40.3 g/t gold, along strike.

Similarly, OTML's weighted average gold and silver channel outcrop assays for the Suguma Lower Gold Horizon was 15m grading 24.7 g/t gold + 47 g/t silver + 2.08% zinc. The FNT and OTML weighted averages are comparable because Frontier's sample contained a higher grade of 3m of 142 g/t gold (the 'nugget' effect) and if this high grade is cut to the 'average' grade, then the intercepts are very similar in tenor for gold, silver and zinc. OTML sampling of hornfelsed sandstones and siltstones adjacent to veins and in the footwall of Southern Horizon returned 4.68 to 13.05 g/t Au and 15.4 to 51.1 g/t Ag and this is encouraging.

Suguma Prospect - Upper Central Creek Continuous Channel Chip Sample Assay Results						
Sample Length	Gold g/t	Silver g/t	Copper (%)	Pb %	Zn %	Sample Number
0 to 3m	9.49	<5	0.01	0.02	0.28	192822
3 to 6m	9.72	8	0.01	0.30	0.25	192823
6 to 9m	1.94	<5	<0.01	0.14	0.43	192824
9 to 12m	10.8	9	0.02	0.11	0.34	192825
12 to 15m	16.9	7	0.02	0.09	0.07	192826
15 to 18m	31.9	18	0.03	0.09	0.23	192827
18 to 21m	303.0	115	0.13	0.21	0.15	192828
21 to 24m	56.0	17	0.08	0.02	0.14	192829
24 to 27m	161.0	47	0.19	0.43	0.36	192830
27m grading	66.8	25	0.05	0.16	0.25	
incl. 12m grading	138.0	49	0.11	0.19	0.22	

OTML drilled hole SUG002 under the Lower Horizon and returned a best intercept of 1.3m of 27.3 g/t gold, which probably reflects a 1.0m true width at 10 metres sub-vertically below the outcrop. This shows the channel sampling was conducted ALONG strike by both companies. Note that a 9m vertical Channel on this outcrop by FNT returned 9m of 23.98 g/t gold including 3m grading 69.0 g/t gold + 3m grading 0.14 g/t gold + 3m grading 2.79 g/t gold, showing the gold 'nugget' effect.

It is interesting that the Upper Horizon has a strong arsenic association and the Lower Horizon has a strong zinc –lead association. This indicates a different provenance or mineralising event for each high grade gold horizon. There are multiple orientations of high grade gold mineralisation at Suguma distributed over at least a 250m E-W and 180m N-S area, with additional gold mineralisation and signs of such over the broader Suguma and entire western grid region. This is important for the possibility of forming a large deposit, because multiple events and orientations plus 'size potential' suggest a higher probability of possible economic mineralisation.

Note that that the soil sampling DID NOT detect a gold anomaly of significance at the Lower – Upper Horizon area, regardless of all the high grade gold mineralisation in outcrop. There was however significant visible gold in many panned concentrate samples. These facts mean all gold, zinc, lead and arsenic anomalies should be carefully evaluated to search for high grade gold mineralisation; there are several of these zones to investigate.

Peak assay grades from the Suguma rock sampling included: 3 metres grading 303 g/t gold, 323.0 g/t silver (float), 3m of 8.89% zinc, 2m of 3.18 % lead and 2m of 1.01% copper. Other samples returned values from those highs down to the analytical detection limits.

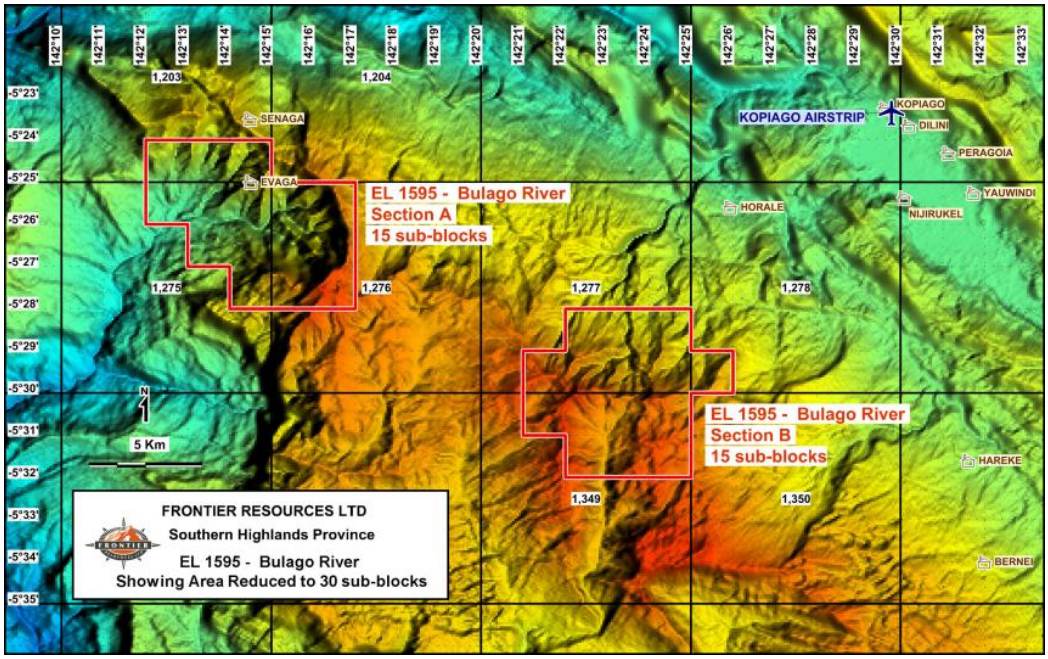
Samples for the current program will be taken from 25mm diameter holes drilled to a maximum 82cm depth with a hand hammer drill and tungsten carbide bit. The sample will be extracted through a 32mm PVC T fitting pre-collar by vacuum extraction with cyclonic collection to ensure excellent sample integrity and that all fine grained native gold is collected for analysis.

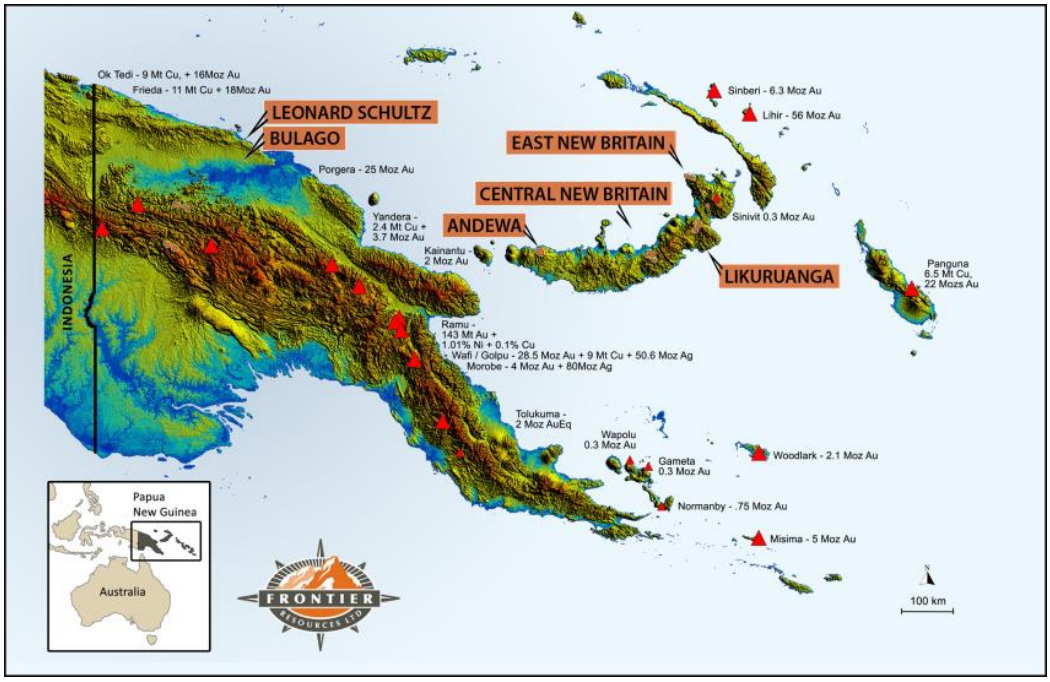
Gold mineralised surface exposures and trenches will be continuous chip channel sampled in detail (as a comparison to previous samples that were 3m long) and continuous, larger 'bulk' samples of high grade mineralisation will also be collected at each site using a demolition jackhammer. The various sample collection and also assay methods will then be evaluated.

Ok Tedi Mining Ltd drilled 2 'deep' holes at Suguma (as part of the Joint Venture terminated in 2013 and stipulated by Frontier as a JV requirement) to attempt to determine the geometry of the gold mineralised zones, but neither hole was effective at testing the high grade gold mineralisation in the Upper Horizon. OTML hole SUG002 targeted a massive 200m vertically below the mineralisation, whereas 30m to 50m would have been more appropriate initially to track the orientation of the mineralisation.

Comprehensive details regarding all exploration completed at Bulago are attached as Appendix 1, summarises of exploration completed by each previous explorer are included as Appendix 2.

Frontier plans to undertake limited shallow drill testing on surface Suguma high grade gold mineralisation (subject to the results from the current program) and it is scheduled to commence late in 2014 (after the wet season).





Previous ASX Releases regarding Bulago were made on 21/12/12, 18/10/12, 24/5/12, 17/5/12, 27/4/12, 28/2/11, 11/1/11, 15/1/10, 23/11/09, 11/9/09 and 2/9/2008. For additional information relating to Frontier Resources please visit our website at www.frontierresources.com.au.

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 and Mineral Resources 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.

Appendix 1: Comprehensive Exploration Information - EL 1595

EL 1595 - Bulago is located in PNG between the World Class OK-Tedi porphyry copper-gold and the Porgera epithermal/intrusive related gold Deposits. Exploration targets are porphyry copper- gold, high-grade epithermal gold and skarn gold deposits. The prospects are located in a 4.5km x 6km well-defined gold, zinc and copper drainage anomaly covering a recessive intrusive in a sub-circular drainage basin, with anomalism continuing up to the peripheral limestones (demonstrating skarn potential).

Exploration History

The exploration history of the EL is well documented. CRA first explored the area in 1970-1971 as part of its quest for copper. The Idawe intrusive stocks at Suguma at the headwaters of the Bulago River were first delineated during this time. Since then the area has been explored intermittently by other companies including Kennecott, Niugini Mining, Equatorial Gold and Indo Pacific Mining.

The 219 km^2 Exploration Licence encompasses a 45km strike length of the regional structural trend covering three multiphase and lightly explored composite quartz monzonite–quartz diorite stocks. Sub-economic porphyry copper (gold?) molybdenum mineralisation was noted in reconnaissance exploration in the early 1970's. Four main areas of interest were generated; the main one being the Suguma prospect at the headwaters of Bulago River. Most of the subsequent exploration activities were concentrated here until the OTML porphyry drilling.

The Suguma Prospect has very high gold grades associated with intrusives in narrow to moderate width (1 to 7m) structures and the contact aureole sediments. It is located on the NW side of a large (1km x 1km) copper and disjointed gold in soil anomaly, within a large (4.5km x 6km), well-defined sub-circular, gold, zinc and copper drainage anomaly. The drainage anomaly covers the recessive intrusive filling a circular drainage basin (the Au/k-1 Prospect), with anomalism continuing up to the peripheral limestones /skarns.

Sulphidic breccia/intrusive outcrop channel samples (true width unknown) include: 15m of 57.4 g/t gold, 6m of 72.2 g/t gold, 0.85m of 754 g/t gold, 2m of 188 g/t gold (re-assay of 220 g/t gold), 1.4m of 55 g/t gold + 34 g/t silver. Historically five holes were drilled here for 829.95m, but did not intersect any comparable high-grade gold. Drill hole sectional evaluation shows opportunity for an alternate model (steeper dip to mineralisation) with the prospectivity remaining high.

The Au/k-1 Prospect gold in soil anomaly is part of the soil anomaly noted above and is 300 x 400m in size centred on a hill, with a highest assay of 0.45 g/t gold. Copper is weakly anomalous and pitting consistently yielded samples greater than 0.1 g/t gold, to a peak of 3.38 g/t gold. It appears to represent a porphyry copper prospect and requires re-evaluation.

4 km to the SE of the Suguma Prospect, at the Funutu Prospect, there were very high grade precious and base metal outcrop intrusive /breccia rock samples collected, that have never been mapped, soil sampled, trenched or drilled. These include:

- 197 g/t gold + 363 g/t silver + 0.55% copper + 5.72% zinc + 5.5% lead
- 108 g/t gold + 200 g/t silver + 0.38% copper + 4.8% zinc + 2.63% lead
- 43 g/t gold +120 g/t silver + 0.49% copper + 1.7 % zinc + 0.86% lead

2 km to the SE of Suguma a boulder of skarn assayed 145 g/t gold + 11g/t silver + 0.78% copper + 8.6% zinc + 0.34% lead. The skarn potential of the region now requires drilling.

Regional Geology

The EL covers the Idawe and parts of the Tabe and Tumbudu Stocks, which are a series of upper Miocene to Pliocene diorite to monzonite intrusives within the Australian Plate sediments. The zone of intrusive activity stretches from Porgera in the east to Ok Tedi in the west and the fault zone is considered to be a major structural boundary between the Australian Plate and the Melanesian Plate. Gold and base metal mineralisation at Porgera, Ok Tedi and Mt Kare is associated with intrusives.

Prospect Geology

The Idawe stock and associated intrusives intrude a series of carbonaceous and calcareous sediments of Mesozoic to Tertiary age. In outcrop the sediments are usually hornfelsed, especially adjacent to the intrusive contacts. Two separate stocks have been mapped, being the Eastern Idawe stock (see plans 3 and

4 in Goldner and Small, 1988) and the Suguma stock located just west of the Suguma Prospect mineralisation (see plans 2 and 5 in Goldner and Small, 1988).

The Idawe stock trends north-west to south-east, sub parallel with the Lagaip Fault and is exposed for 85m and is open ended. The intrusives are generally monzonitic to dioritic in composition. Initially only the eastern stock was believed to be mineralised, but subsequent mapping indicates that this assumption /conclusion requires reassessment. It suggests that the eastern end of a previously inferred Western Idawe stock (identified as unmineralised and unaltered diorite float) may in fact be the Suguma Stock. If this is so, the previously held assumption that this stock is unmineralised would be incorrect.

This is highly encouraging and could represent significant potential for discovering high grade gold or porphyry copper-gold mineralisation in the area. There may be other untested high-level mineralised stocks in better topographic locations within the EL and this should be assessed.

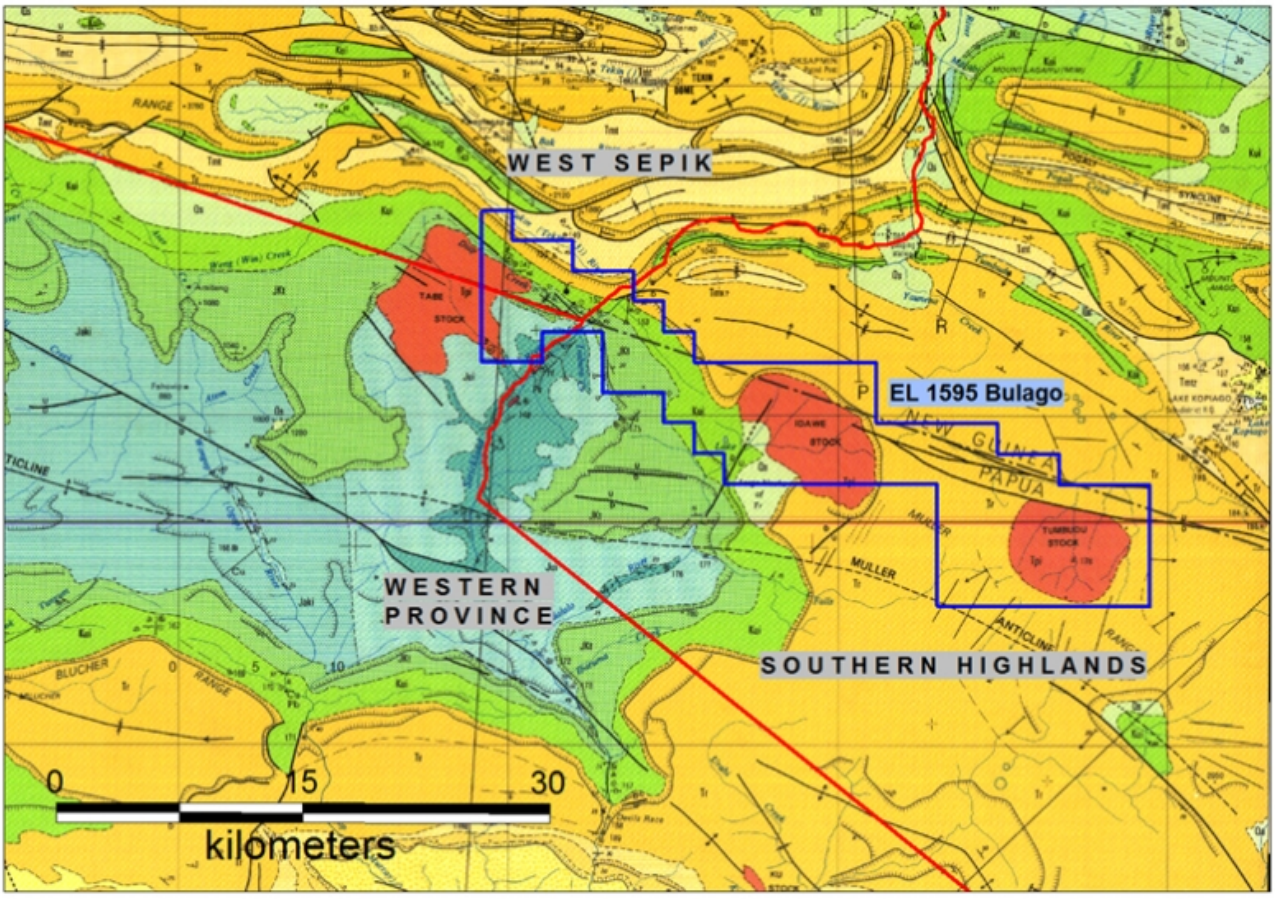
The alteration and intrusive lithologies are summarised in the report of Goldner and Small (1988).

Mineralisation Model

The mineralisation model for EL 1595 is the same as for Porgera (+ Mt Kari) and Ok Tedi, as the Bulago River is located in a geologically similar environment. Pleistocene to Miocene aged intrusives are emplaced within the Mesozoic to Tertiary aged Australian Plate sediments.

Three styles of mineralisation are identified in the Bulago Area:

- Very high-grade gold (to 754 g/t) associated with intrusive/host rock contact breccia and shear zones. This style of mineralisation is noted in breccias and shear zones in areas adjacent to the intrusives. The zones are generally narrow but high grade.
- Gold and base metal mineralisation associated with the stock itself (to 3.38 g/t gold). This mineralisation style is low grade and more dominant within the main Idawe stock.
- Very high-grade skarn (to 145 g/t gold) mineralisation is associated with the intrusives/ overlying limestones. The skarn mineralisation in the Bulago region is not well defined but has been sampled and mapped in float/outcrop, returning very high gold and base metal values. Multiple magnetite (+/- mineralisation?) skarns are apparent in aeromagnetic signatures.



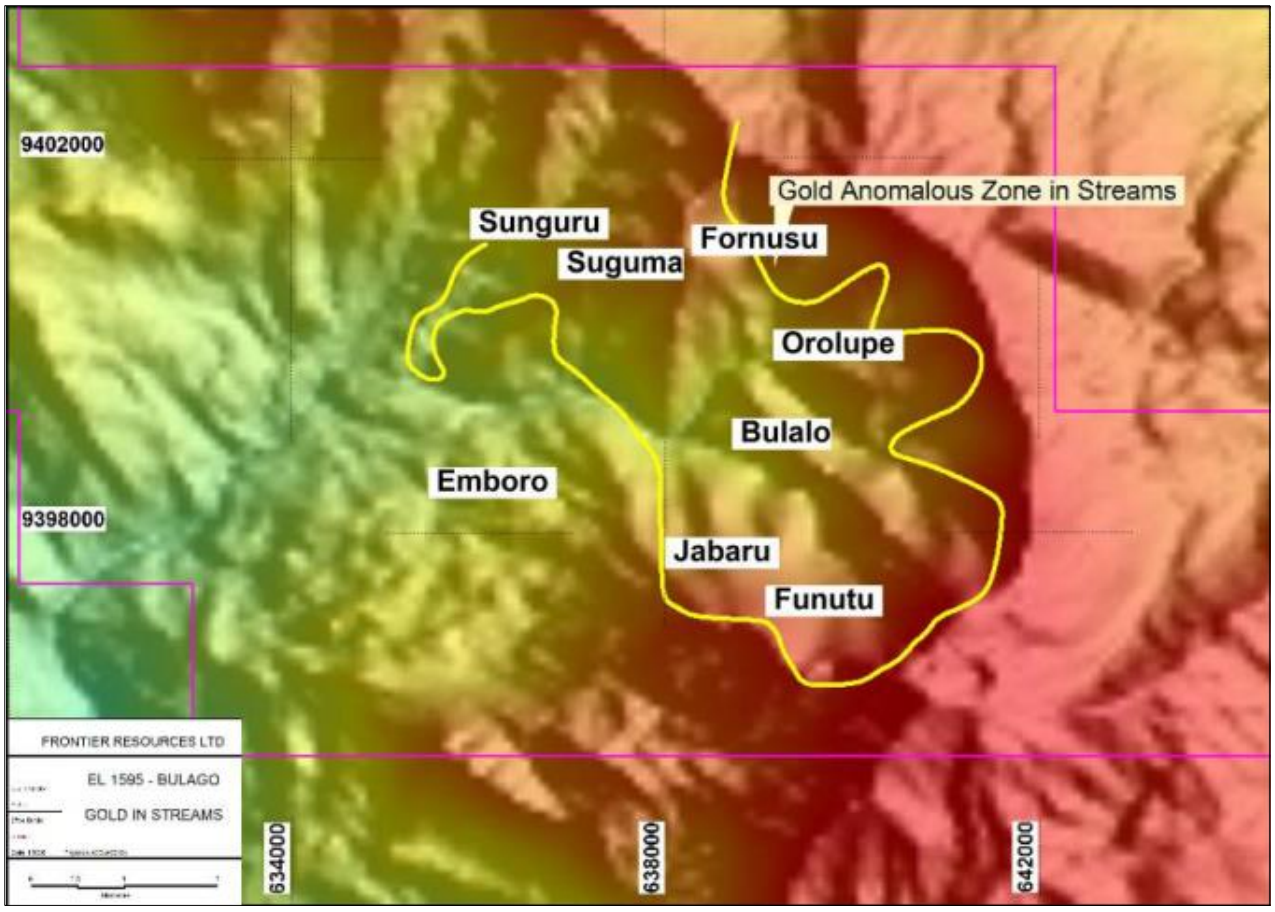
Historical Exploration Results

Exploration by CRAE in 1970/1971 concentrated on porphyry copper style mineralisation although the possibilities for stratiform base metals, lateritic nickel and bauxite were examined. No attention was paid to the possibility for gold mineralisation occurring in the area and no gold analyses were undertaken.

Their work consisted of regional stream geochemistry with some subsequent detailed stream sediment sampling and mapping (see Rebek 1971). The only mineralisation discovered was located in the headwaters of Bulago River. Low grade porphyry copper mineralisation associated with a series of intermediate porphyry intrusives was located; however outcrop grades did not exceed 1000 ppm copper.

During the first 6 months of the Niugini Mining JV they undertook reconnaissance and semi-detailed geological mapping, stream sediment, pan concentrate, rock and soil sampling. A total of 894 samples – 80 mesh stream sediments, 93 pan concentrates, 87 rock and 625 soil samples – were collected.

Niugini Mining (Corner, 1984) defined a 3 km^2 copper geochemical anomaly centred on the NW termination of the main eastern stock (plate 1 Corner 1984). The anomaly is marked by a predominance of copper in stream sediment, soil and rock values in excess of 150 ppm. The highest copper value in stream sediment was 540 ppm in 9603R. The highest soil value, 1310 ppm came from nearby. Anomalous Pb-Zn geochemistry forms a halo, probably of the order of 1 km, peripheral to the copper zone. Maximum values obtained in soils were 337 ppm Pb (9729R) and 1600 ppm Zn (10047S) respectively.



A gold anomalous zone of at least 10 km^2 overlaps the copper and lead-zinc zones. This gold zone is characterised by numerous soil geochemical values in the 0.05 to 0.5 g/t Au range. Higher gold values (such as 1.22 g/t Au, sample 10281S) appear to stem from dyke contact zones and narrow veins. Silver values were quite erratic.

Two soil samples from west of Fornusu Creek reported 13 g/t Ag. Arsenic was noted to be quite abundant in the Sugumbe Creek vein mineralisation. Scattered arsenic in soil anomalies (>50 ppm As) fall into two north to north-west trending zones, which overlap both the copper and the lead-zinc zones (see plate 1, Corner, 1984).

Sample No	Au (g/t)	Cu, Pb and Zn (ppm)	Ag, As (g/t)	Comments
9154	2.29	54, 24, 113		Stream sediment Bulago Tributary
9405	2.6			Narrow quartz-epidote vein with sphalerite
9406	2.10	58, 233		Stream sediment Orolupe Creek
9209	0.404	1960, 54, 87	9, 580	Rock sample Fornusu Creek
9210	0.210	5040, 48, 166	9, <50	As above
9236	1.27	74, 166, 98	23, 520	Rock sample Bulago River
9418	11.5	1750, 122, 4880		Arsenopy.-pyrite-chalco-pyrrhotite-sphal. vein
9414	8.00	80, 40, 422	11, <50	Sediment sample
9433	145	7800, 3408, 8600	11.2, 2080	Skarn boulder, Babanna Creek
9447	0.086	2320, 89, 23	<1, <50	As above
9448	2.09	42, 20, 86		As above
9477	3.40	113, 50, 215	<1, 250	Rock sample Sunguru
9418	11.5	1750, 122, 4880		Soil sample Sugumbe
9623	1.18	2380, 3478, 6.35%	74, <50	Rock sample
9624	0.166	510, 1368, 6590	2, <50	As above
9759	0.166	640, 170, 1550	8, 170	Rock sample

Highlights of exploration results reported by Corner (1984)

Sample locations are contained in Goldner and Small (1988) –plans 2, 3, 4 and 5.

A further report on the work conducted by the Niugini Mining JV (Miller and Weir, 1984) postulates three broad types of gold mineralisation:

- Low grade (<0.3 g/t) sulphide associated gold in the main part of the quartz monzo-diorite of the eastern stock;
- Moderately to strongly mineralised vein and breccia gold mixed sulphides occurring peripheral to the interpreted stock in contact zones in both intrusive and wall rock. Shear zones may also exert control; and
- A high grade metamorphic, skarn type mineralisation presumably at intrusive/carbonate rock interfaces.

They note a high degree of fracturing associated with areas of more intense dyking and also reported interesting results in addition to those tabulated above:

- Sample 5988 from a narrow high sulphide content breccia zone in an intrusive – 197 g/t Au; 363 g/t g/t Ag; 5,500ppm Cu; 5.5% Pb; and 5.72% Zn.
- Sample 5993, a grab sample from a vein or silicified sediment – 3.9g/t Au; 11.0 g/t Ag; 930ppm Pb and 6,100ppm Zn.

Additionally, from the regional stream sediment survey a silt sample from a major westerly flowing tributary of the Bulago River in the southern part of the tenement returned a value of 2.59 g/t gold. The catchment above this sample site is about 30 km^2. Two pan concentrate samples in the western part of the licence also returned high values (+10 g/t Au), however the JV did not follow up these anomalous results.

The 1986 program conducted by Norfolk Investments included the evaluation of the earlier work, a photo-geological study, follow-up stream sediment sampling in the area where Kennecott collected the 2.59 g/t Au sample and detailed follow-up of the Upper Bulago River drainage area.

Norfolk could not repeat the 2.59g/t result and considered the original result to be spurious. They recognised a number of different styles of precious metal mineralisation in the Upper Bulago river area:

- Low to moderate grade gold mineralisation within the altered and mineralised hornblende diorite suggesting a large tonnage, low grade, porphyry style target. They outlined a number of gold in soil anomalies – anomaly 1 yielded pit samples containing more than 0.7 g/t gold with a peak value of 3.38 g/t Au.
- High to very high (bonanza) grade gold and silver mineralisation associated with base metal and arsenic sulphides probably occurring at or near the contact of the eastern Idawe Stock with surrounding sediments.

Goldner and Chan (1986) suggest a number of mineralisation styles including –

- Breccia zones within the sediments where breccia fragments have been annealed by sulphides. This type of material was found in Suguma Creek in float and outcrop. A 1.4m wide zone yielded a composite chip sample (sample 090) result of 55 g/t gold and 34 g/t silver, while numerous float samples of sulphide bearing breccias in Suguma Creek contained highly significant gold values ranging from 2.56 g/t Au (sample 085 – including 22 g/t Ag, 560 ppm Cu, 2520 ppm Pb, 8100 ppm Zn and 50 ppm As) to 280 g/t Au (sample 078 – including 148 g/t Ag, 254 ppm Cu, 383 ppm Pb, 4200 ppm Zn and 4.17% As) and (sample 076 – 205 g/t Au, 194.4 g/t Ag, 4400 ppm Cu, 1.35% Pb, 4.95% Zn and 3.93% As).
- High grade gold values were also obtained from a brecciated quartz veined diorite outcrop in Funutu Creek. One sample (031) yielded between 73 and 108 g/t gold. (see plan 8, Goldner and Chan, 1986 for sample locations).
- Massive or banded metal sulphides containing very high (bonanza) grade gold values and suggesting replacement or skarn type mineralisation. A float sample (076) contained 205 g/t gold, 194 g/t silver, 0.44% copper, 1.35% lead, 4.95% zinc and 3.93% arsenic. Suguma Creek is considered to have considerable potential for small to medium tonnage high-grade gold mineralisation.
- Quartz veined limestone breccia material found as float in the Bulago River and more particularly in Fornusu Creek suggest late stage epithermal type activity.

Goldner and Chan (1986) again suggested that the geological framework and mineralisation styles at Bulago appear to be similar to the Porgera deposit where both low-grade disseminated and high to very high-grade gold mineralisation has been discovered.

Chan, McDonald and Goldner (1987) reported on the July/August 1987 exploration program conducted by Equatorial Gold. Results were so encouraging that two areas, Suguma Creek and Anomaly Au/k-1 were elevated to prospect status warranting drill testing. The Suguma Creek prospect was considered to be a prime target with high to very high gold values obtained from sulphide rich horizons within altered and silicified sediments within the contact aureole and to the west of the Eastern Idawe Stock. The best results obtained from traverse chip sampling included 15m (sample 1208) averaging 57.4 g/t gold and a separate 6m interval (sample 1213 averaging 72.2 g/t gold as well as 31 g/t Ag, 310 ppm Cu, 1300 ppm Pb, 3000 ppm Zn, and 8900 ppm As.

The Au/k-1 prospect is a 300 to 400m gold in soil anomaly within the Eastern Idawe Stock. Deep hand pitting consistently yielded samples containing greater than 0.1 g/t Au, with the highest value being 3.38 g/t gold. Work on this prospect indicated porphyry style mineralisation.

The results of field work undertaken by Equatorial Gold between April and July, 1988 are contained in the report by Goldner and Small (1988). The work included detailed exploration of the surface gold mineralisation at the Suguma Prospect and further reconnaissance investigation of the gold stream sediment anomaly in the Bulago River catchment.

At the Suguma Prospect, Equatorial drilled 5 diamond bore holes totalling 829.95m. The drilling program failed to intersect economically significant gold values – the best assay being 0.6m returning 1.00g/t gold. The drilling was designed to test a moderately dipping (dip slope) roughly east-west trending structure that was mineralised at the surface. Equatorial considered that the geological and structural framework of the

Suguma mineralisation was more complex than previously envisaged. Fault and shear zones appear to be the major structural controls and later faulting may have displaced some of the mineralised horizons.

Goldner and Small (1988) reported that additional sampling during 1988 resulted in refining and in some cases extending the previously defined anomalous gold zone. The high gold in pan-concentrate values obtained by Kennecott in the lower portion of Suguru Creek was confirmed. In addition, sampling yielded significant gold in pan-concentrate values and float samples from two of the main west flowing tributaries (Omai and Gunabu Creeks) in the upper portion of Sunguru Creek.

Kennecott's original sampling of Emboro Creek on the southern side of the Bulago River yielded low gold results. However the additional 1988 sampling in this drainage yielded interesting gold values and a new apparently separate stream sediment anomaly was outlined. Extremely high (greater than 500 g/t Au) gold in pan-concentrate values were obtained from Jabaru and Muabalu Creeks and some small nuggets were panned. The extreme topography and the resulting small pan-concentrates may account for some of the high values but the presence of coarse gold was encouraging.

Additional sampling in the upper reaches of the Bulago River and its major tributaries, Fornusu and Orolupe Creeks, has refined and somewhat extended the eastern and north-eastern boundary of the main stream sediment anomaly.

The drainage geochemical surveys have delineated an extensive area of stream sediment and panned concentrate mineralisation. The image below shows that the Suguma area is in the northwestern part of this anomaly (see the creek name for its general location). Most of the exploration to date has been concentrated in this area.

The other areas have had no or no effective follow–up work conducted on them. The drill holes did not intersect any significant gold and base metal mineralisation, but were reputedly "drilled in the wrong direction", according to the supervisory geologist.

The stream sediment anomalies for copper, lead and zinc are also outlined in the figures section (from Goldner and Small 1988). The main copper anomaly occurs as an irregular NW-SE trending zone which encompasses much of the Eastern Idawe Stock in the upper part of the Bulago River as well as many of the smaller intrusives in the Suguma and Gunabu Creek areas.

The strongest part of the copper anomaly (values > 150ppm Cu) appears to be localised entirely within the eastern Idawe stock. The relatively small zones of anomalous lead values are generally either peripheral to, or on the edges of the larger copper anomaly. A small discrete lead anomaly occurs in the area of the known Suguma mineralisation. Zinc has a wider anomalous distribution than copper and generally covers the same area outlined as being anomalous in gold.

The Goldner and Small (1988) report summarises the extensive float and to a lesser degree outcrop sampling undertaken in the area. Plans 2 to 4 (1:2500 scale), plan 6 (1:1000 scale) and plans 8 and 9 (1:250 scale) show the gold and base metal values.

According to Goldner and Small in general the low proportion of significantly mineralised float and outcrop samples does not adequately explain the widespread, high grade gold in pan-concentrate results. They suggest that further field work would be required to locate the source of the gold. They suggest "further detailed exploration of the anomalous drainages is clearly justified because the area as a whole is considered to have excellent potential for the discovery of economic gold mineralisation. As previous regional outcrop sampling has been rather sparse and largely restricted to grab sampling, further work should concentrate on extensive composite chip sampling of all mineralised and/or altered outcrops."

Equatorial Gold carried out little work on the tenement during the period 1989/1990. In 1990 the Company contracted David Shatwell Pty Ltd to examine all previous work and suggest a new exploration program (Plibersek, 1990).

Shatwell claimed that the best chance for a large high grade Porgera type target is gold anomaly K-1 and possibly some of the smaller anomalies, K-2, K-3, K-4, K-8, K-9 and K-13, which surround it. He also indicated that Funutu Creek was a possible "Porgera Zone 7" type target. The possibility is suggested of a NW trending structure passing through the mineralised outcrops in Upper Funutu Creek and through soil

anomalies K-11, K-10, K-5 and K-6, a possible strike length of 3km. He outlined a program that concentrated on these targets. It seems that Equatorial Gold did no further work on the tenement. Possible mineralisation trends are shown in a figure from Shatwell in Plibersek, 1990)

In 1995 Abadin did some quite limited stream reconnaissance work in the Bulago River drainage area, but no data is included in the report of Unamba (1996). Waisime (1997) reported on work undertaken by Abadin Pty Ltd, now with a name change to Indo Pacific Mining (PNG) Pty Ltd. The company did follow-up mapping and sampling in the Bulago headwaters.

A number of anomalous gold results confirmed previous results. A zone comprising thin brecciated quartz-pyrite-(galena) veins returned a peak grade of 26.3 g/t gold. A 2m true width sample interval including a 60-80 cm quartz-pyrite-(galena-sphalerite) vein yielded 12.5g/t gold. Waisime suggested that the gold mineralisation was structurally controlled and was associated with quartz, carbonate and base metal sulphides. He indicated that the primary targets are fractures or fault controlled epithermal to mesothermal gold mineralisation and deeper level porphyry gold and copper mineralisation.

Waisime considered that the area east of Suguma Creek, towards Ima and Funutu Creeks to be a high priority target in terms of structurally controlled gold mineralisation. In this area major structures intersect and dilate and may have localised the mineralisation. The anomalous gold results obtained by Indo Pacific are shown in the Table below. (OTC/GR – outcrop grab, OTC/CH – outcrop channel, FL – float)

Sample No	Type	Sample description	Au (g/t)	Comments
S006	OTC/GR	Py/sph/cpy/ga/qz on flt plane/diorite	2.020	
S011	OTC/GR	Bx'ed qz/py/sph vn in diorite	0.825	
S012	OTC/CH	Qz/py/ga/sph vn in diorite	2m of 12.1	2m true width
S014	OTC/GR	Bx'ed & oxidised diorite	0.997	
S016	OTC/GR	Py/cly fill on flt plane	0.602	
S021	OTC/CH	Bx'ed qz/py/sph/ vn in diorite	0.5m of 8.9	0.5m true width
S024	OTC/CH	Sh'rd/ bx'ed cly/py/qz'ga/sph fill	1m of 0.577	1m true width
S031	OTC/CH	Sh'rd/ bx'ed cly/py/qz/ ga/ sph fill	2m of 0.563	2m true width
S037	OTC/GR	Bx'ed qz/py/ga vn on flt plane	0.923	
S045	OTC/GR	Flt/bx vn qz/py/sph/pb	26.300	
SO47	OTC/GR	Qz/py/mag vn	2.950	
S074	OTC/GR	Bx'ed py/cpy/qz vn	0.524	
S076	OTC/GR	Flt/bx zone qz/py vmn	0.510	
S093	FL	Gossan	0.864	
S122	OTC/CH	Bx zone py/cpy/cc/sp/ga/vn	2m of 3.78	2m true width
S123	OTC/GR	Ga/py/cpy/vn along flt plane	0.66	
S124	OTC/GR	Py/cpy/cov along flt plane	0.766	
S125	OTC/CH	Fracture fill py oxidised	0.662	
S127	OTC/GR	Flt/bxa zone py/cly on flt plane	0.86	
S133	OTC/GR	Py/cpy/ga on fltplane	0.524	
S139	OTC/CH	Py vn in shear/bx zone	2m of 1.35	2m true width
S140	OTC/CH	Flt/bx zone qz/py/sph/ga vn	2m of 12.5	2m true width
S158	FL	Bx'ed qz/py vn oxidised	0.799	

Exploration Completed by Frontier Resources Ltd 2009 -2010

During the first year of the first term, all exploration reports were obtained, PDF'd and plans scanned to produce JPEGs. A Summary Report was produced and all this data is included herein. Discussions were initiated with landowner groups regarding access for exploration and this was obtained in September 2009.

The Suguma Camp was located at 142deg 14min 8.53 min E/ 5deg 25min 45.35sec S, however, the intent was to have 3 or 4 camps over the program.

A large grid-based geochemical and geological exploration program was initiated in early October 2009. The survey intended to cover a massive 7 sq km soil sampling grid and about 70% of the drainages that are strongly gold anomalous in that area. The soil grid was going to consist of up to 70 kilometres of lines on a 100m spacing (but locally also 200m), with samples collected at 25m downline intervals. It targeted up to 2,800 soil samples to be collected, subject to the constraints imposed by the rugged terrain.

The exploration team consisted of 6 geologists, plus 11 field technicians and 45 landowner labourers. Geological mapping was undertaken to define mineralisation trends, to allow the creation of mineralisation models for the prospects and to assist in refining future drilling targets.

An extensive hand trenching program was planned on the high-grade gold targets, but this proved difficult to accomplish. Hand trenching has been undertaken at the Bulalo Prospect, however, due to various strategic, technical and logistic reasons it was also decided to undertake a much broader based program and evaluate as much of the area for gold and base metal mineralisation as possible, prior to undertaking a large amount of detailed work at any particular prospect.

The program was terminated early in December 2009 due to the site weather conditions not allowing the crews to be re-supplied adequately and this resulted in less soil sample coverage than intended and not all targets being sufficiently covered. Nevertheless a total of 1,672 soil samples were collected, along with 349 rock samples and 164 trench samples.

BULAGO GOLD AND BASE METAL DRAINAGE ANOMALIES

The Bulago drainage basin contains a very well defined, strong and cohesive approximately 14 sq km gold in stream sediment and panned concentrate anomaly. There are 6 discrete and large prospect areas within this gold anomaly, including Suguma and Funutu.

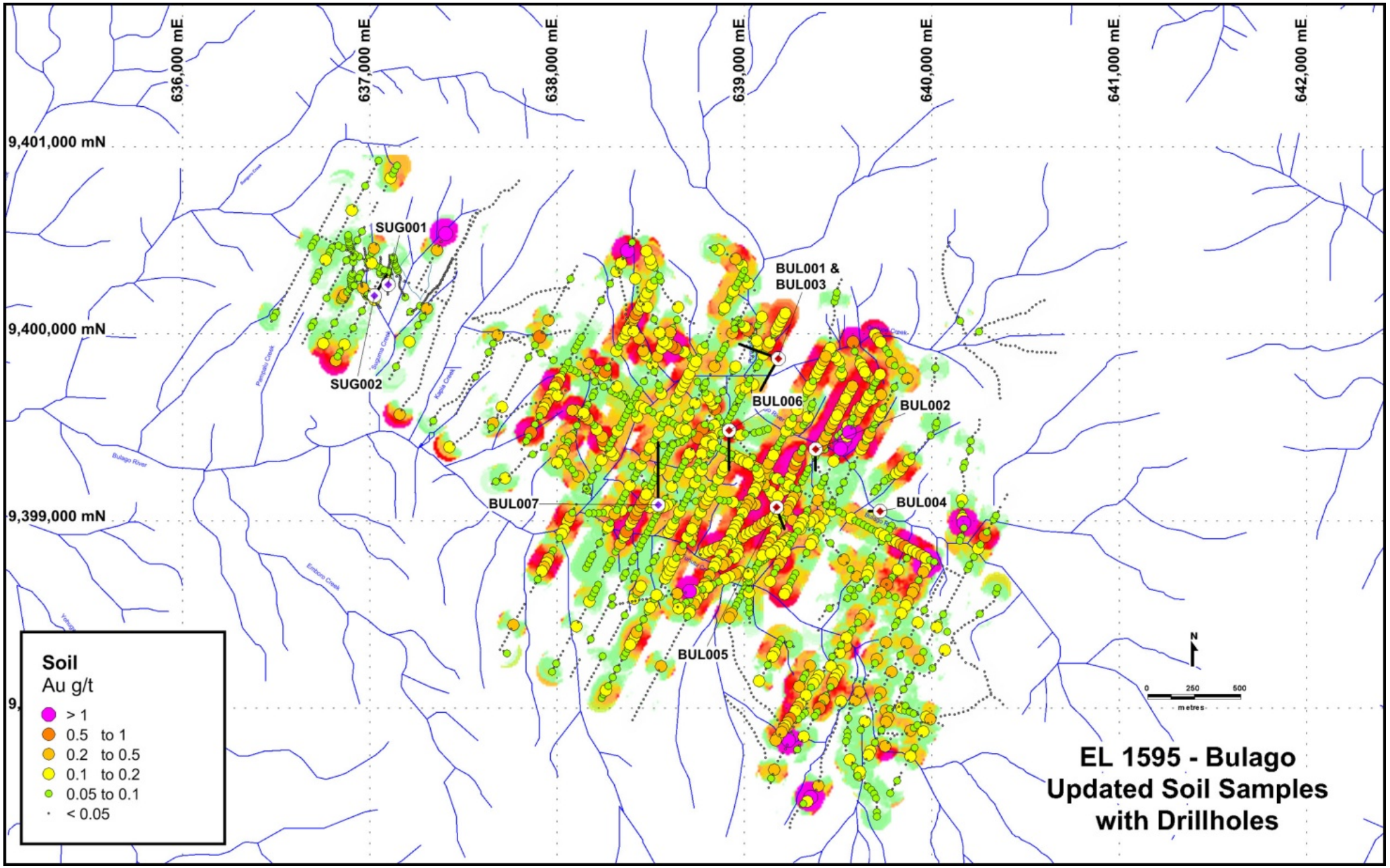
The prospects are located within a large elliptical (3.5km x 5.5km), well-defined gold, zinc and copper (+/- lead) drainage anomaly that covers a centrally located porphyry copper / gold mineralised intrusive. Precious and base metal anomalism continues up to and possibly into the peripheral limestones demonstrating the potential for economic skarn deposits.

The 2009 soil sampling exercise revealed multiple, extensive and strong gold anomalies associated with widespread copper anomalies of weaker intensity but still very well defined. The gold anomaly (>50ppb) trends broadly NW-SE and is around 2,500m long and 2,000m wide. It has about 10 distinct higher grade zones or prospects. The copper anomaly consists of two approximately N-S (+ NE-SW) trending, 1,600m long and 200m to 550m wide zones at >300 ppm. The full extent of the anomaly is around 4,000m long (NW-SE) at >150ppm copper.

SUGUMA PROSPECT

The Suguma Prospect is located to the NW of a large (1 sq km) copper and disjointed gold in ridge and spur sample soil anomaly. The general Suguma area is defined by a higher tenor pan concentrate gold and coincident stream sediment silt gold anomaly, plus semi-coincident strong zinc (~1 sq km) and lead (~0.25 sq km) and lower level copper in stream sediment silt.

The Suguma Prospect area itself has never been soil sampled in detail probably because of the very rugged topography. There are two historic ridge and spur soil lines, separated by about 600m:
The western soil line has two discrete gold anomalies that are 60m and 120m long, with peak grades of 0.49 g/t gold and 1.22 g/t gold, respectively. These soil anomalies are located about 150m west of the main Suguma mineralisation and likely represent its strike extension in that direction and evidence of a possible sub-parallel second zone of mineralisation, respectively. Two pits were dug in the 1.22 g/t gold anomaly (named Anomaly 10) and the peak pit value returned 0.604 g/t gold. This is highly encouraging. It was noted that both pits may not have penetrated the talus/scree and reached bedrock. Further work was recommended but never undertaken and is still to be done by the JV manager.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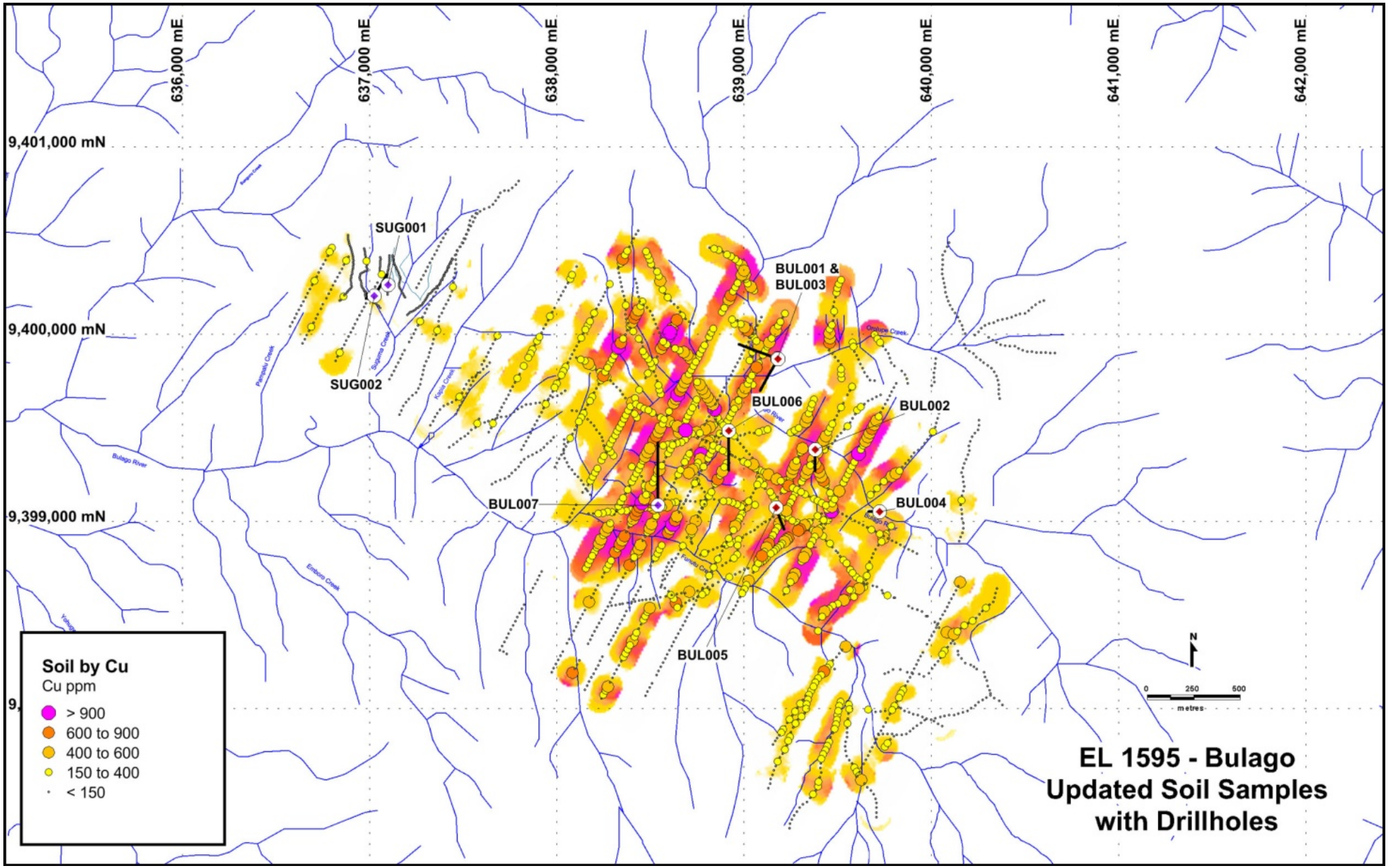
SUG001
SUG002
BUL001 &
BUL003
BUL006
BUL002
BUL007
BUL004
BUL005
Soil
Au g/t
> 1
0.5 to 1
0.2 to 0.5
0.1 to 0.2
0.05 to 0.1
< 0.05
N
0 250 500
metres
EL 1595 - Bulago
Updated Soil Samples
with Drillholes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SUG001
SUG002
BUL001 &
BUL003
BUL006
BUL002
BUL007
BUL004
BUL005
Soil by Cu
Cu ppm
> 900
600 to 900
400 to 600
150 to 400
< 150
N
0
250
500
metres
EL 1595 - Bulago
Updated Soil Samples
with Drillholes

Suguma has very high gold grades in structures of unknown maximum widths in both the intrusives and contact aureole sediments. Variable quantities of base metal sulphides (sphalerite, galena and chalcopyrite) and arsenopyrite occur in the more strongly gold mineralised areas. Semi-massive mineralisation is common, along with disseminations and fracture coatings, mostly of pyrite and pyrrhotite.

Historical channel samples of semi-massive sulphidic veining and breccia outcrop include a true width of 1.4m of 55 g/t gold + 34 g/t silver. Apparent widths (sampled along strike/down dip) included 15m of 57.4 g/t gold, 6m of 72.2 g/t gold, 0.85m of 754 g/t gold and 2m of 188 g/t gold, with silver and base metal credits.

Petrographic and electron microprobe work by a previous explorer noted coarse free gold and also fine gold associated with sulphides in the high grade samples. The work suggested that copper, zinc and iron sulphides likely represented an early stage of mineralisation and the gold, arsenic and lead mineralisation was a later phase.

During the 2009 campaign Frontier personnel identified, re-sampled and mapped the very high-grade gold outcrops noted by previous explorers. Several new zones of gold/base-metal mineralisation were discovered by the field crews. The true width of all these zones was often difficult to establish, given the orientation of the mineralised zones and the difficult access due to the topography.

Re-sampling of the Central Creek Area resulted in assay highlights including:

- Continuous chip outcrop channel sample from the Upper Central Creek Zone - 12 metres grading 138 g/t gold + 49 g/t silver, within an interval of 27 metres grading 66.8 g/t gold + 25 g/t silver (see Table for individual 3 metre assays).
- Peak assay results in that interval included 3 metres grading 303 g/t gold and 115 g/t silver.
- Two discrete high-grade gold horizons were located in outcrop within the Central Creek Zone. The 'Upper Zone' of high-grade gold mineralisation (noted above) has its 'width' open to the north, with the final 3 metre channel sample grading 161 g/t gold + 47 g/t silver. Its strike extent appears to be >160 metres to the east (past East Creek).
- Composite channel sample from the 'Lower Zone' - 18 metres grading 40.3 g/t gold. See the table for the individual assay results.
- These horizons were both sampled basically north–south (up the creek) and are separated horizontally by 50 metres. The outcrop continuous chip samples were collected where possible by their exposure and orientation and do not necessarily represent true widths of mineralisation.
- Continuous chip outcrop channel sample assays from the Upper Central Creek Zone included 12 metres grading 138 g/t gold + 49 g/t silver, within an interval of 27 metres grading 66.8 g/t gold + 25 g/t silver (see table below for individual 3 metre assays).

Suguma Prospect Rock Chip Channel, Grab and Float Assay Results

Sample Length	Gold (g/t)	Silver (g/t)	Zinc (%)	Lead (%)	Copper (%)
4.0m	**135.6**	**105**	**3.49**	**2.68**	**0.63**
4.0m	**36.4**	**35**	**0.94**	**0.93**	0.26
7.5m	**67.0**	**42**	**2.27**	**1.52**	0.28
incl. 4.5m	**92.7**	**52**	**2.90**	**1.93**	0.37
9.0m	**24.0**	**45**	**1.30**	0.23	0.08
incl. 3.0m	**69.0**	**97**	**1.46**	0.61	0.10
18.0m	**40.3**	32	1.13	0.14	0.06
incl. 12.0m	**79.1**	**31**	**1.05**	0.18	0.06
6.0m	**21.1**	**20**	**1.25**	0.53	0.12
10.0m	**14.3**	**25**	**1.36**	0.54	0.15
incl. 2.0m	**48.3**	**61**	**2.35**	**1.97**	**0.51**
0.65m	**9.61**	15	**1.26**	0.54	0.09
0.3m	**8.25**	<5	**1.12**	0.13	0.01
Outcrop Grab	**140.0**	**101**	**2.97**	**2.77**	**0.45**
Outcrop Grab	**23.5**	11	0.08	0.12	0.04
Outcrop Grab	**10.1**	**151**	**10.90**	0.12	0.14
Rock Float	**16.7**	**323**	0.78	0.45	0.15

Suguma Prospect - Upper Central Creek Continuous Channel Chip Sample Assay Results						
Sample Length	Gold g/t	Silver g/t	Copper (%)	Pb %	Zn %	Sample Number
0 to 3m	9.49	<5	0.01	0.02	0.28	192822
3 to 6m	9.72	8	0.01	0.30	0.25	192823
6 to 9m	1.94	<5	<0.01	0.14	0.43	192824
9 to 12m	10.8	9	0.02	0.11	0.34	192825
12 to 15m	16.9	7	0.02	0.09	0.07	192826
15 to 18m	31.9	18	0.03	0.09	0.23	192827
18 to 21m	303.0	115	0.13	0.21	0.15	192828
21 to 24m	56.0	17	0.08	0.02	0.14	192829
24 to 27m	161.0	47	0.19	0.43	0.36	192830
27m grading	66.8	25	0.05	0.16	0.25	
incl. 12m grading	138.0	49	0.11	0.19	0.22	

Suguma Prospect - Lower Central Creek Continuous Channel Chip Sample Assay Results						
Sample Length	Gold g/t	Silver g/t	Copper (%)	Pb %	Zn %	Sample Number
0 to 3m	3.91	81	0.09	0.24	2.36	192837
3 to 6m	0.42	16	0.06	0.03	1.25	192838
6 to 9m	32.20	17	0.05	0.07	1.33	192839
9 to 12m	17.70	22	0.05	0.10	0.73	192840
12 to 15m	142.00	42	0.03	0.16	0.76	192841
15 to 18m	45.50	12	0.05	0.22	0.34	192842
18m grading	40.29	32	0.06	0.14	1.13	
incl.12m grading	79.13	31	0.06	0.18	1.05	

- Peak assay results in that interval included **3 metres grading 303 g/t gold**, 125 g/t silver and 8.89% zinc.
- Two discrete high-grade gold horizons were located in outcrop within the Central Creek Zone. The 'Upper Zone' of high-grade gold mineralisation (noted above) has its 'width' open to the north, with the final 3 metre channel sample grading **161 g/t gold** + 47 g/t silver. Its strike extent appears to be >160 metres to the east (past East Creek).
- The grade of a composite channel sample from the 'Lower Zone' was inadvertently and incorrectly reported to the ASX on 1/3/2010 as being 15 metres grading 13.08 g/t gold (due to an averaging error). This interval is actually 3 metres longer and 3 times higher in grade being 18 metres grading 40.3 g/t gold. This appears to have been taken along strike.
- These horizons were both sampled basically north–south (up the creek) and are separated horizontally by 50 metres.
- The outcrop continuous chip samples were collected where possible by their exposure and orientation and do not necessarily represent true widths of mineralisation.

Bulalo (Au- K1) Prospect Highlights

- High–grade silver mineralisation was noted in a 1.5m wide quartz sulphide vein outcrop. Two grab samples over the interval assayed 7.04 g/t gold + **3,150 g/t silver** + 2.61% copper + 3.44% zinc and 4.14 g/t gold + **1,960 g/t silver** + 1.73% copper + 2.89% zinc, respectively.

Funutu Prospect Highlights

- Intrusive outcrop grab rock samples assayed 8.33 g/t gold + 44 g/t silver and 3.30 g/t gold + 25 g/t silver.

- Semi massive sulphide outcrop rock samples assayed to 0.3 metre of 2.85 g/t gold + 230 g/t silver + 1.0% copper + 8.29 % zinc + 6.64 % lead.
- Skarn float assayed to 16.9% zinc + 20 g/t silver and outcrop assayed to 5m of 0.18% copper + 0.1 g/t gold in several samples.

OTML Exploration 2010-2011

Exploration work during 2010-11 began with an airborne geophysical (magnetics, radiometrics and DTM) survey by UTS Geophysics involving 2848 line kilometres at 50m line spacings and mean sensor height of 50m. Mira Geoscience did the QA/QC of the raw data, carried out a preliminary unconstrained inversion model of the magnetic data by using local magnetic susceptibility measurements from outcrops, an interpretation of the results and commented on the OTML drilling proposal, (reported previously, Niru & Kepa, 2011).

Construction work consisted of a base camp and satellite camps with helipads and excavation of drill pads with helipads for scout drilling.

Geological work concentrated in areas of known mineralisation from previous workers in the Suguma, Fornusu, Upper Bulago and Funutu areas in the eastern part of the Idawe Stock and comprised creek traverse mapping, trenching and sampling, ridge & spur soil sampling and rock chip (outcrop and float) sampling, (Niru and Kepa, 2011). A total of 664 geochemical samples were collected and assayed, (Niru & Kepa, 2011).

Seven cored drill holes, BUL001-7, were completed at Bulago for 2711.1m and 2 were drilled at Suguma, SUG001-2, for 591.9m. All drill core has been photographed and logged but the core from BUL007 remains on site due to poor accessibility during the wet season. Core from Suguma is awaiting sample preparation. Assay results are available for drill holes BUL001-006. Samples from BUL001 were submitted for thin section petrography,

Sampling, Geochemistry, Magnetic Susceptibility and Specific Gravity

Soil samples, spaced at 25m at Bulago and 10m at Suguma, were collected from the 'B' and 'C' horizons by digging a small diameter pit up to 2m deep to reach bedrock or recognisable rock chips. A 2-4 kg sample was collected from the bottom of the hole, bagged in plastic and sent to the OTML Exploration sample preparation facility in Tabubil. Rock chip samples, including regular chip samples over 1-2m, and float and outcrop grab samples were also collected into plastic bags.

Rolls of pre-numbered, sticky, peel-off sample number labels incorporating blanks, laboratory umpires, field duplicates, pulp duplicates, pulverising size checks and standards, one on rotation per 10 samples, are used in the field as part of the OTML QA/QC sample assay system. A separate roll of the same peel-off sample numbers is used for field notebook purposes.

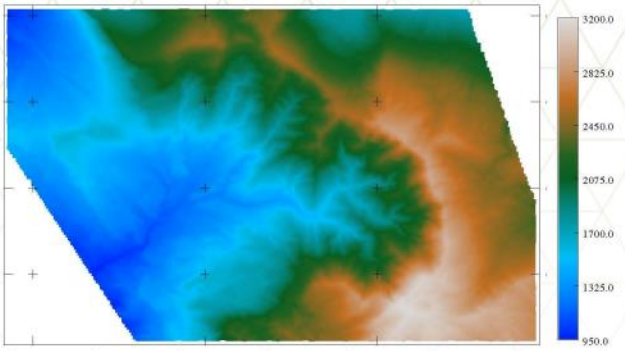
Upon arrival at the sample preparation shed the samples are transferred from plastic to calico bags for oven drying. The dry material is then crushed to <3mm size and riffle-split to yield a small representative sample for pulverising. A small sample of approximately 200gm is then taken and dispatched to ALS-Chemex Laboratories Townsville for multi-element assay. The crushed reject part of the sample is stored.

Analytes and Ranges (ppm) for Method ME-ICP41								AAS26	
Ag	0.2-100	Co	1-10,000	Mn	5-50,000	Sr	1-10,000	Au	0.01-100
Al	0.01%-25%	Cr	1-10,000	Mo	1-10,000	Th	20-10,000		
As	2-10,000	Cu	1-10,000	Na	0.01%-10%	Ti	0.01%-10%		
B	10-10,000	Fe	0.01%-50%	Ni	1-10,000	Tl	10-10,000		
Ba	10-10,000	Ga	10-10,000	P	10-10,000	U	10-10,000		
Be	0.5-1,000	Hg	1-10,000	Pb	2-10,000	V	1-10,000		
Bi	2-10,000	K	0.01%-10%	S	0.01%-10%	W	10-10,000		
Ca	0.01%-25%	La	10-10,000	Sb	2-10,000	Zn	2-10,000		
Cd	0.5-1,000	Mg	0.01%-25%	Sc	1-10,000				

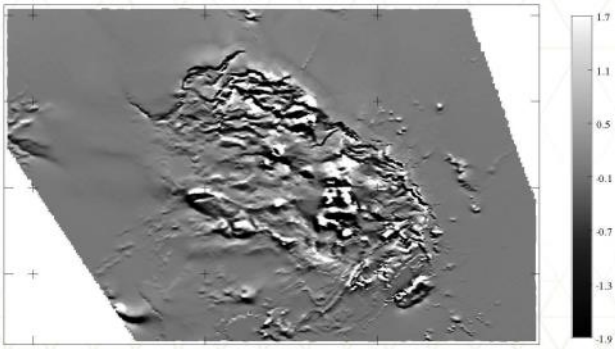
Sample Assay Methods, Analytes and Ranges

Bulago - Gridded Data Products MAG

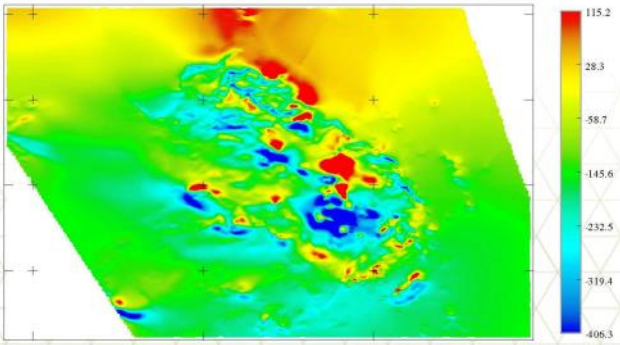
Terrain Model (m)



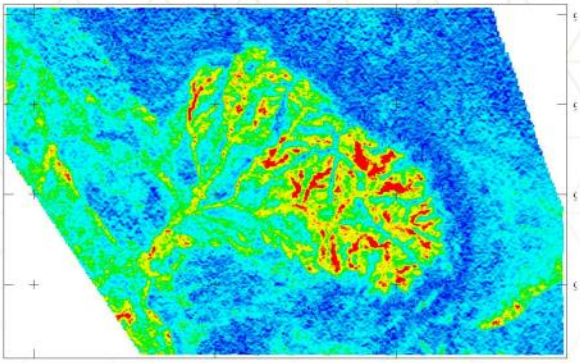
First Vertical Derivative (nT/m)



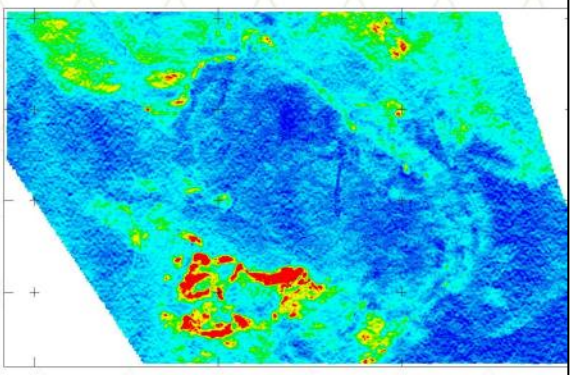
Total Magnetic Field (nT)



Bulago - Gridded Data Products Radiometrics

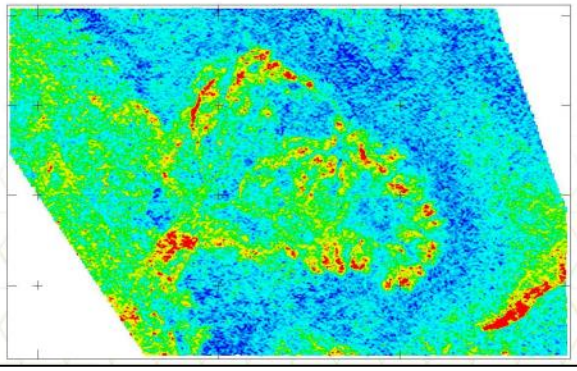


Potassium

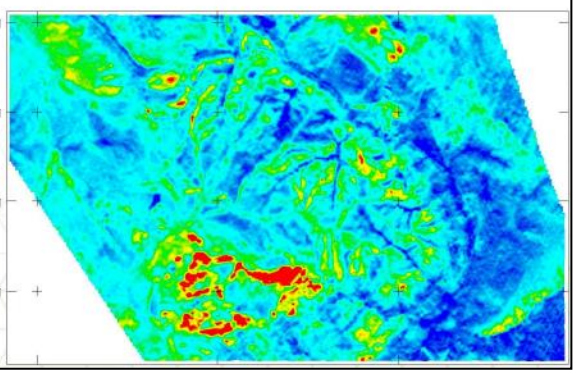


Uranium

Thorium



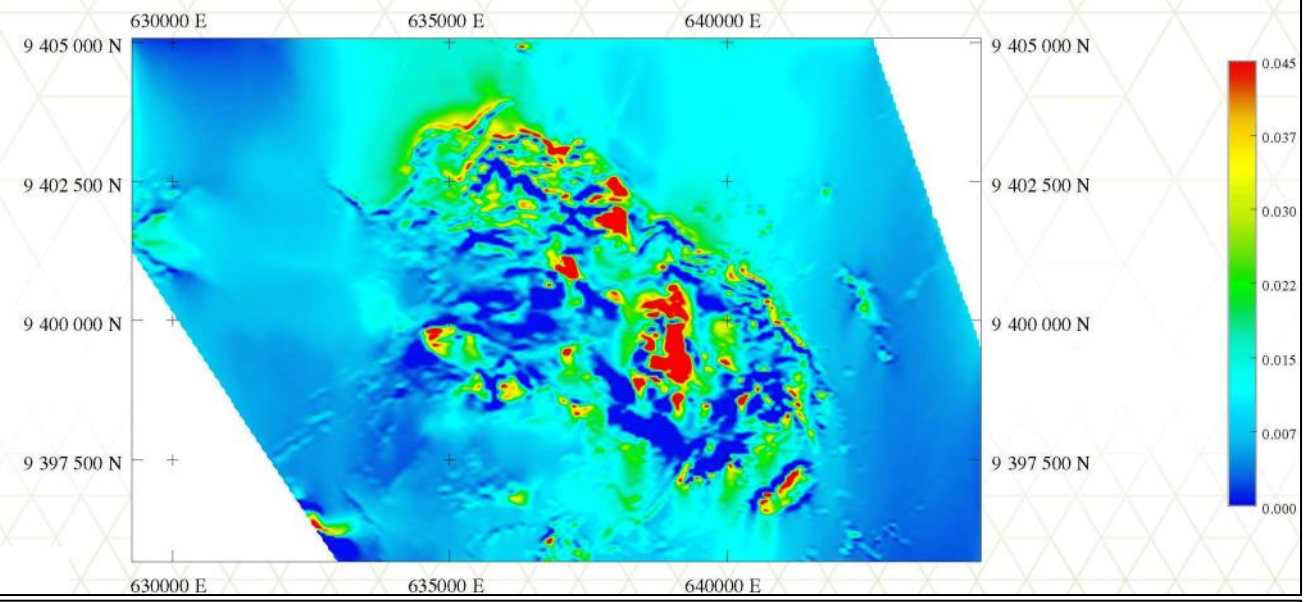
Total Count



Apparent Susceptibility

Apparent Susceptibility Inversion

- Fits data and takes terrain into account
- Shows location of susceptible bodies

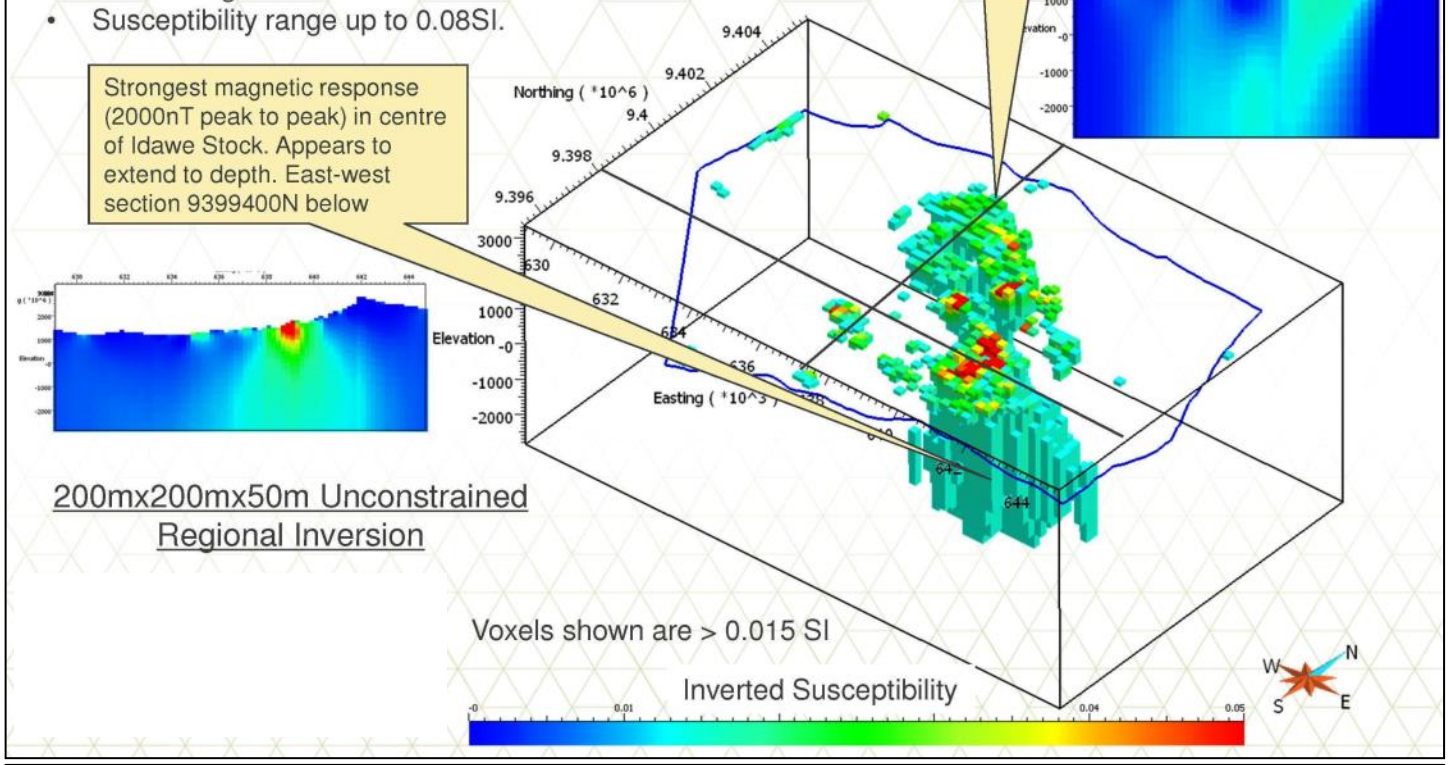


Regional 3D Heterogeneous Inversion

- 5km depth
- Establish regional trends and character of major susceptible features
- Provide regional context for local area inversions
- Susceptibility range up to 0.08SI.

Section 636500E
Intrusive dipping
to the south

Strongest magnetic response (2000nT peak to peak) in centre of Idawe Stock. Appears to extend to depth. East-west section 9399400N below



200mx200mx50m Unconstrained Regional Inversion

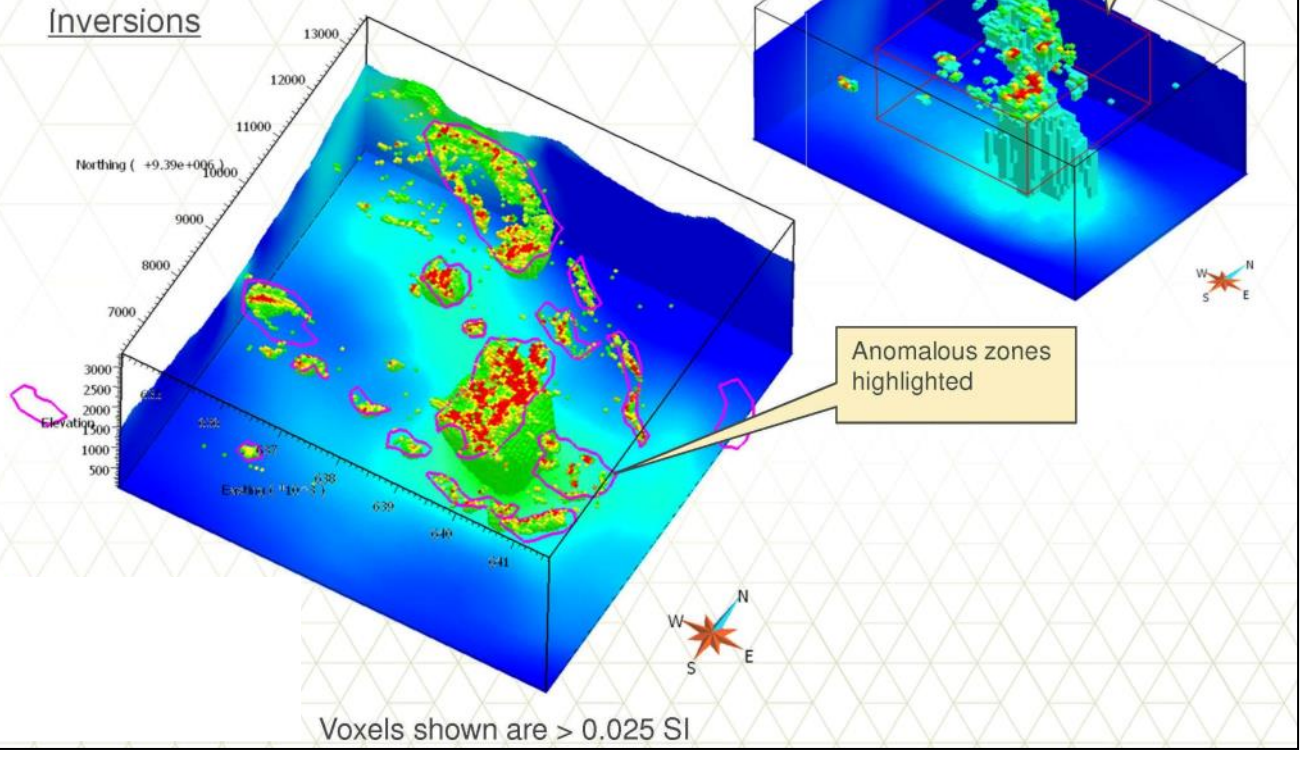
Local Unconstrained Inversion

- Most anomalies lie in central area of the survey, allowing a single central area local inversion
- Local inversion incised into the regional susceptibility model
  - Account for regional field variations laterally at depth

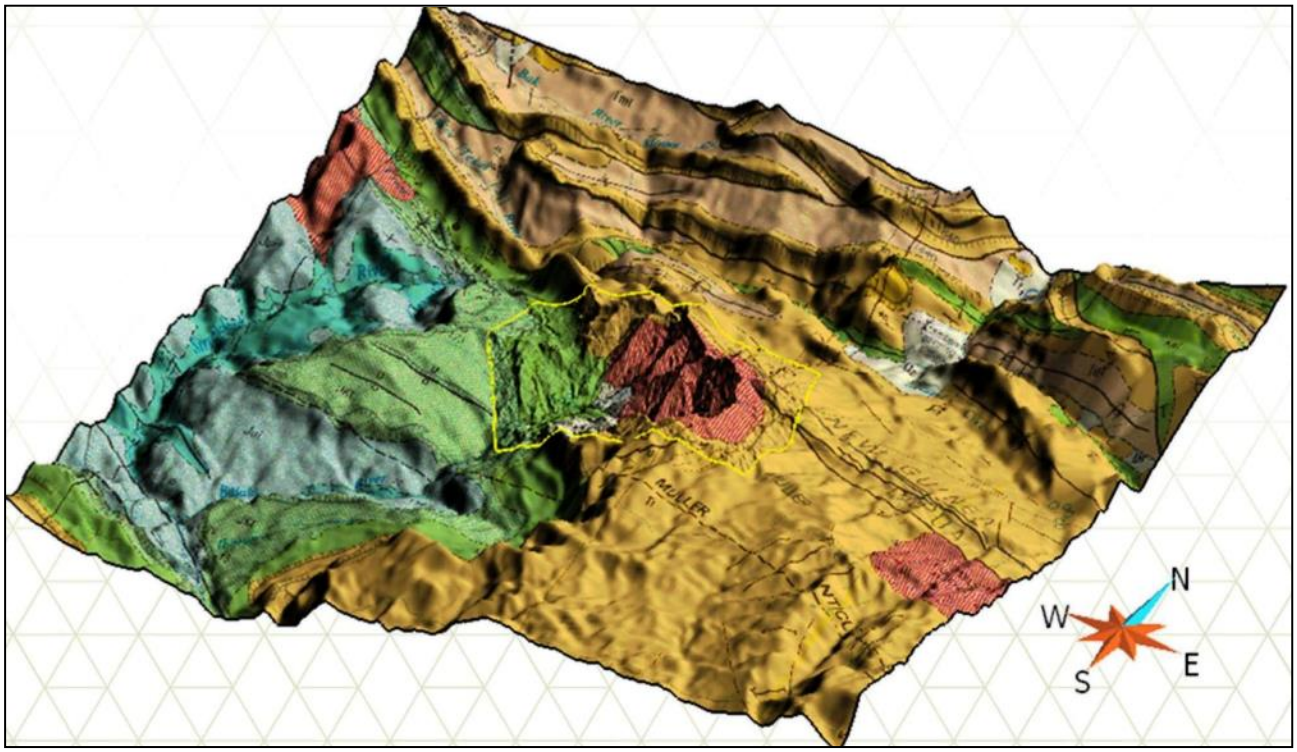
50mx50mx25m Unconstrained Inversions

Location of Local Inversion within Regional Model

Anomalous zones highlighted

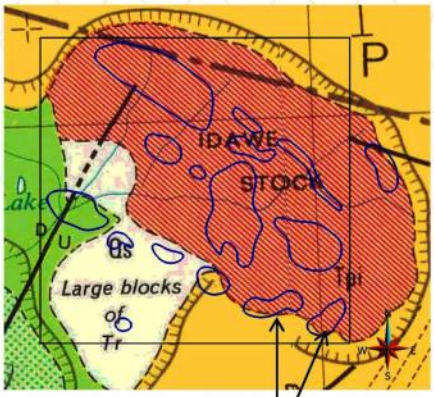


Voxels shown are > 0.025 SI

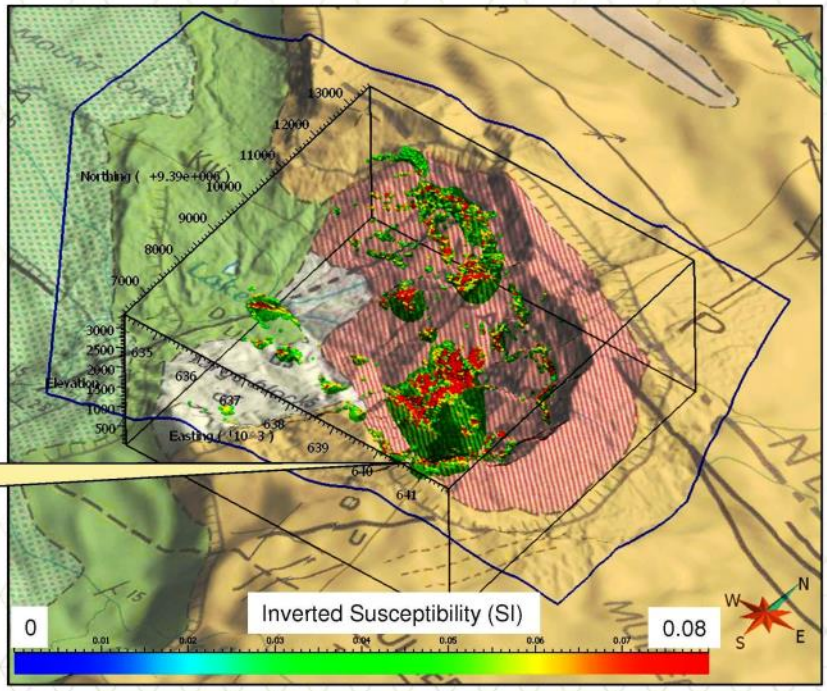


Local Unconstrained Inversion – 50m Resolution

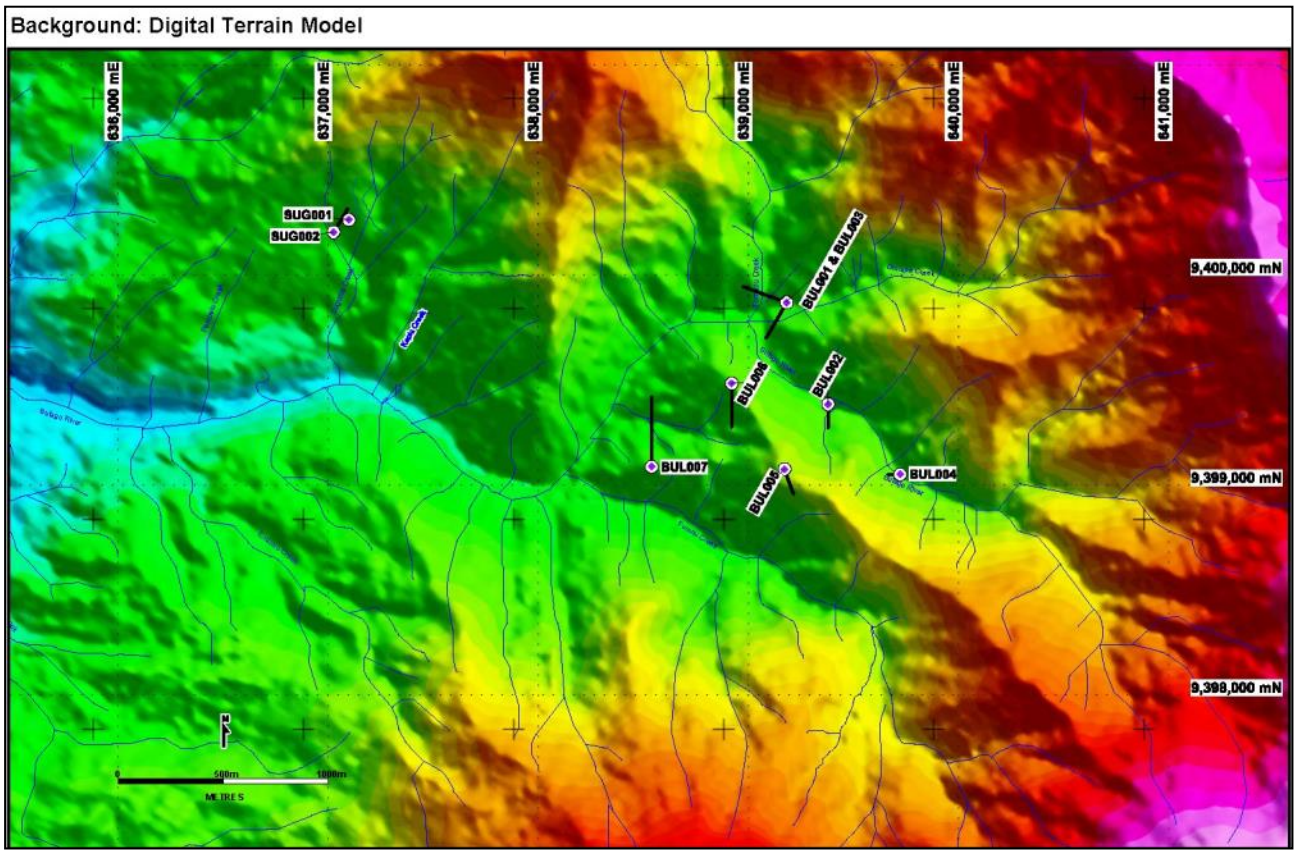
- Local Inversion with geology overlay (Georeferencing requires confirmation)

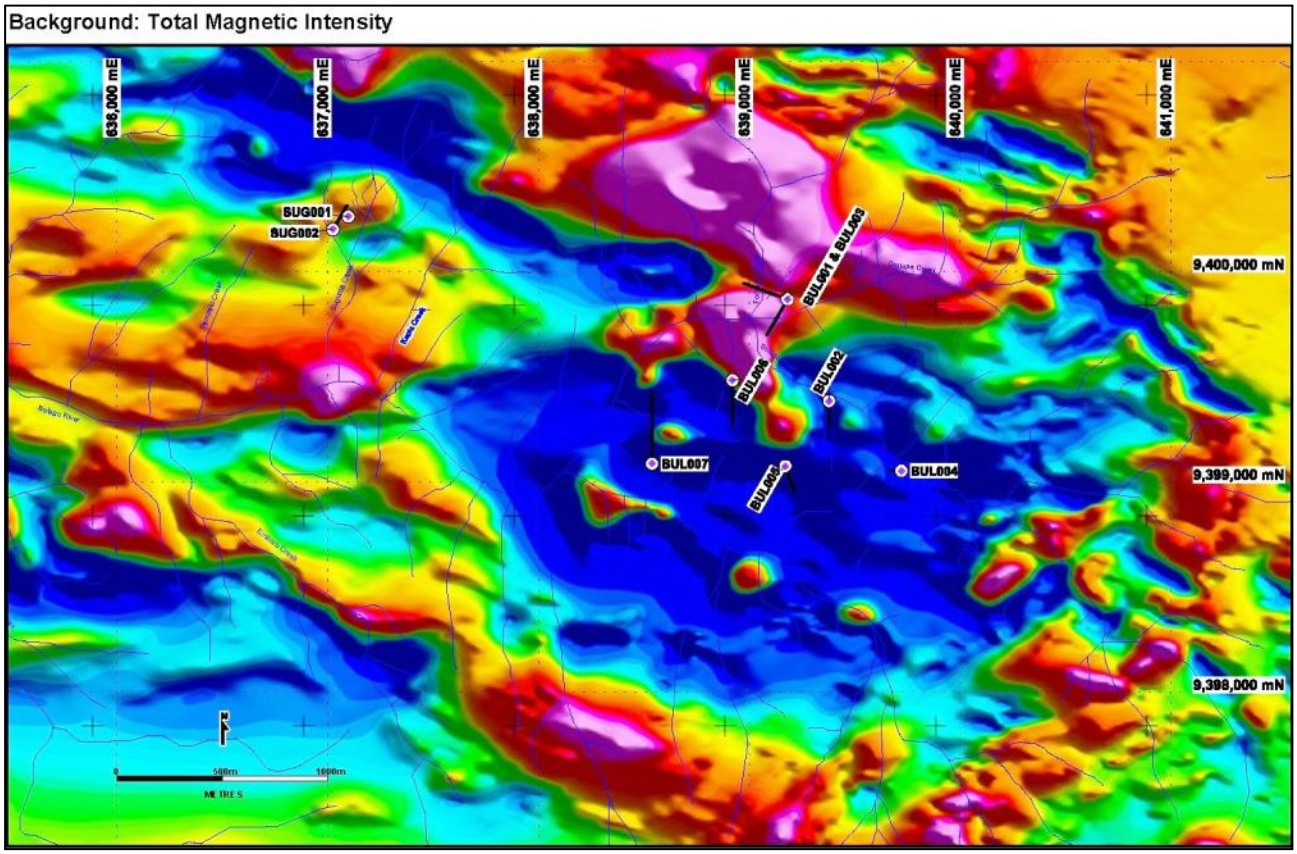


Potential for skarn targets surrounding intrusive at limestone contact



Voxels shown are > 0.025 SI





OTML Exploration 2011-2012

OTML compiled the original Kennecott ridge and spur soil sampling and continued with infill ridge and spur soil sampling between the Kennecott lines to close off the original Bulago Cu-Au soil anomaly. A series of close-spaced soil lines were sampled at Suguma to assist with tracing the mineralised zone identified and drilled by Equatorial Gold NL in 1988 and re-sampled by Frontier Resources. Geological mapping was limited to a small area at Suguma this reporting period.

During the reporting period, 997 surface samples were collected for assay. Assay results undergo QA/QC inspection before they are appended to the OTML database along with sample location coordinates, sample collection information and detailed lithological descriptions provided previously from the field in digital AcQuire database format. Results include all OTML samples to date, including those previously reported (Niru & Kepa) that have been updated with additional sample data, (Appendix 2).

Drill core was photographed and logged on site, (Appendix 3). Sample intervals, mostly 1-2m, were assigned and marked up on the core before it was transported back to Tabubil. Here the logging and sampling intervals were validated against the logs, the core was sawn in half and one half was taken for preparation (in the same way as the rock samples) and assay while the remaining half was returned to the core trays, palletised and stored. A total of 1018 samples was assayed.

Magnetic susceptibility measurements using a TerraPlus KT10 magnetic susceptibility meter were taken on the crushed reject bags of all rock and drill core samples, (Appendix 4).

Specific gravity measurements were determined by the wax sealed water displacement method.

	Soil Samples			**Rock Chip Samples**		**Drill Core Samples**		
	No. Samples	**Assays Received**	**Line kms**	**No. Samples**	**Assays Received**	**No. Drill Holes**	**No. Samples**	**Assays Received**
BULAGO	608	606	14.72	63	62	7	1018	1018
SUGUMA	236	236	3.15	87	87	2	0	0
TOTAL	**844**	**842**	**17.87**	**150**	**149**	**9**	**1018**	**1018**

Bulago and Suguma Sample & Assay Statistics

Soils

Infill ridge and spur soil sampling continued during this reporting period with the completion of 43 lines providing a clearer understanding of the soil copper-gold anomaly. The >200ppm Cu soil anomaly, 2 x1.6km in size, is broadly coincident with the interpreted extent of the Bulago Porphyry from the K channel of the airborne radiometrics survey, although it is apparent that the Porphyry extends east of the soil anomaly where it is probably unmineralised. The >200ppm Cu anomaly extends southwards for 1km to the Funutu Skarn area as a tail. It is not closed off here and further sampling is in progress.

Two zones of >400ppm Cu in soils have been identified, the larger of which measures 600x200m in size, straddling Bulago River. The second, circular in shape and approximately 200m in diameter, lies east of Camp 4.

Four large soil gold anomalies, >0.2 g/t Au, are identified, within and peripheral to the >200ppm Cu soil anomaly and partially coincident with the >400ppm Cu soil anomalies.

There are 4 small and separate molybdenum anomalies >10ppm Mo, all of which are confined to the >200ppm Cu soil anomaly. One lies north of the >400ppm Cu anomaly straddling the Bulago River and another is partially coincident with that Cu soil anomaly. The third is broadly coincident with the >400ppm Cu and gold anonmaly east of Camp 4 but is larger than it and the fourth forms a sinuous zone within the southern tail of the >200ppm Cu anomaly that is not closed off.

Anomalous lead, >22ppm Pb, is irregularly distributed, partly peripheral and parly overlying the >200ppm Cu anomaly. A large irregular zone lies across the nothern part of the >200ppm Cu anomaly. It is extensive over the eastern side of the Bulago Porphyry and beyond into the surrounding sediments and overlies part of the northern >400ppm Cu anomaly. A second zone lies along Toporo Ridge south of Camp 4.

Anomalous zinc, >130ppm Zn, is also irregularly distributed and largely peripheral to the >200ppm Cu anomaly and the Bulago Porphyry. Two of the larger zones are coincident with Pb anomalies in sediments north of the Bulago Porphyry and on its eastern margin.

Anomalous arsenic, >13ppm As, is very irregulalry distributed generally around the margins and peripheral to the Bulago Porphyry and the >200ppm Cu anomaly. In the north a broad zone overlies the northern part of the porphyry and the >200 and >400ppm Cu anomalies. It extends into the sediments through the headwaters of Kapia Creek, coincident with a number of Pb anomalies here. A series of narrow and elongate sub-parallel arsenic anomalies lie on the eastern margin of the porphyry and extend into the sediments. They fall within the broad Pb-Zn anomalies here and are sub-parallel with interpreted structural zones and arsenic soil anomalies in the Suguma region. There are also several arsenic anomalies in the Funutu Skarn area associated with other small isolated Cu, Pb, Zn, Mo anomalies here.

The main airborne magnetic positive anomaly is largely coincident with the central part of the soil copper anomaly, but surrounded by isolated smaller anomalies extending beyond the soil copper anomaly and the interpreted extent of the porphyry from the K channel of the airborne radiometrics.

Interpretation of Bulago Soil Geochemistry

Ridge and spur soil sampling of the Bulago Porphyry has successfully outlined a large copper anomaly broadly surrounded and partly overlapped by anomalous Pb, Zn, As.

Two significant zones of >400ppm Cu lie within the broad copper anomaly each with partly coincident and/or surrounding gold and molybdenum anomalies.

An elongate Cu-Mo anomaly extends south to the Funutu Skarn where there are a number of small isloated Pb, Zn and As anomalies. Parts of the soil copper anomaly are not closed off and futher sampling is in progress.

The anomalous geochemistry is broadly coincident with the interpreted extent of the Bulago Porphyry based on the K Channel radiometrics of the airborne survey and the magnetic susceptibility from the same survey.

Two samples of diorite from Fornusu Creek contain 1110ppm Cu and 1.51 g/t Au, respectively and further reconnaissance is warranted here.

Shears in siltstones in adjacent tributaries in the Upper Bulago River assayed 1855 and 1110 ppm Cu and 1.54 and 1.91 g/t Au, respectively. Further reconnaissance is warranted to determine the significance of these structures on the margins of the Bulago Porphyry in an area of anomalous soil Pb, Zn, As geochemistry.

Three samples of pyrite-pyrrhotite skarn from Upper Funutu Creek assayed 1380, 1300, 1060 ppm Cu and up to 0.22g/t Au. They may be derived from further bodies of skarn mineralisation east of the known sub-outcropping mineralisation in an area of minor magnetic anomalies. Further reconnaissance mapping is required here.

Two samples from Toporo Creek, draining the region between the two significant >400ppm soil Cu anomalies assayed 1605 and 2640 ppm Cu and 0.1 and 1.12 g/t Au, respectively. This area requires more detailed mapping and rock chip sampling.

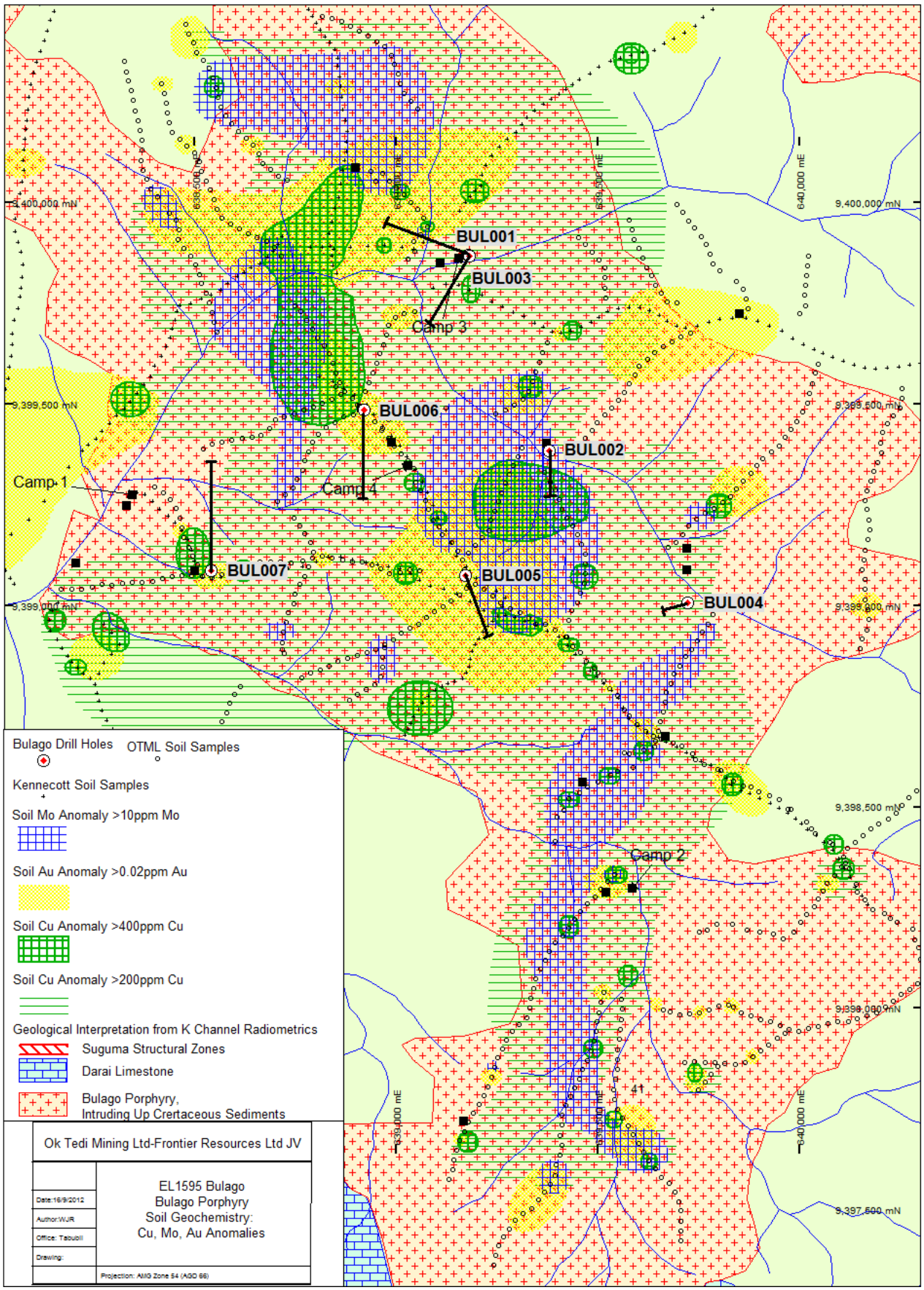
Other lower-grade samples, listed in the database, may also warrant follow-up.

Funutu Skarn

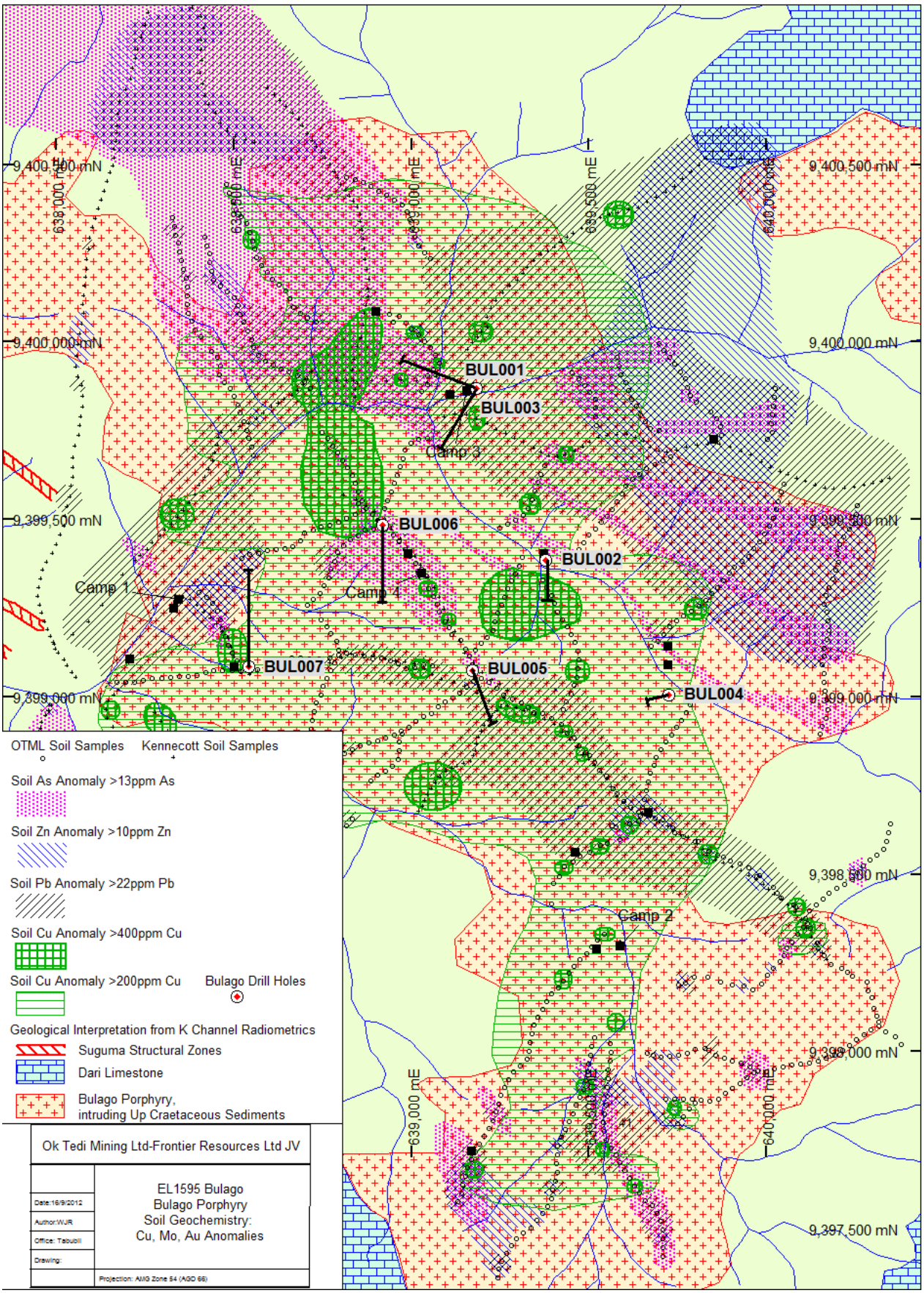
Follow-up of the pyrrhotite-chalcopyrite-pyrite-sphalerite mineralised boulders of skarn in Funutu Creek, found and reported by Kennecott (Miller and Weir, 1985) and re-sampled by OTML (Niru and Kepa, 2011), lead to the discovery of sub-outcropping sulphide skarn mineralisation , mineralised intrusives and diorite endoskarn in the headwaters of Funutu Creek.

Comparison of Kennecott and OTML Skarn Samples, Funutu Ck

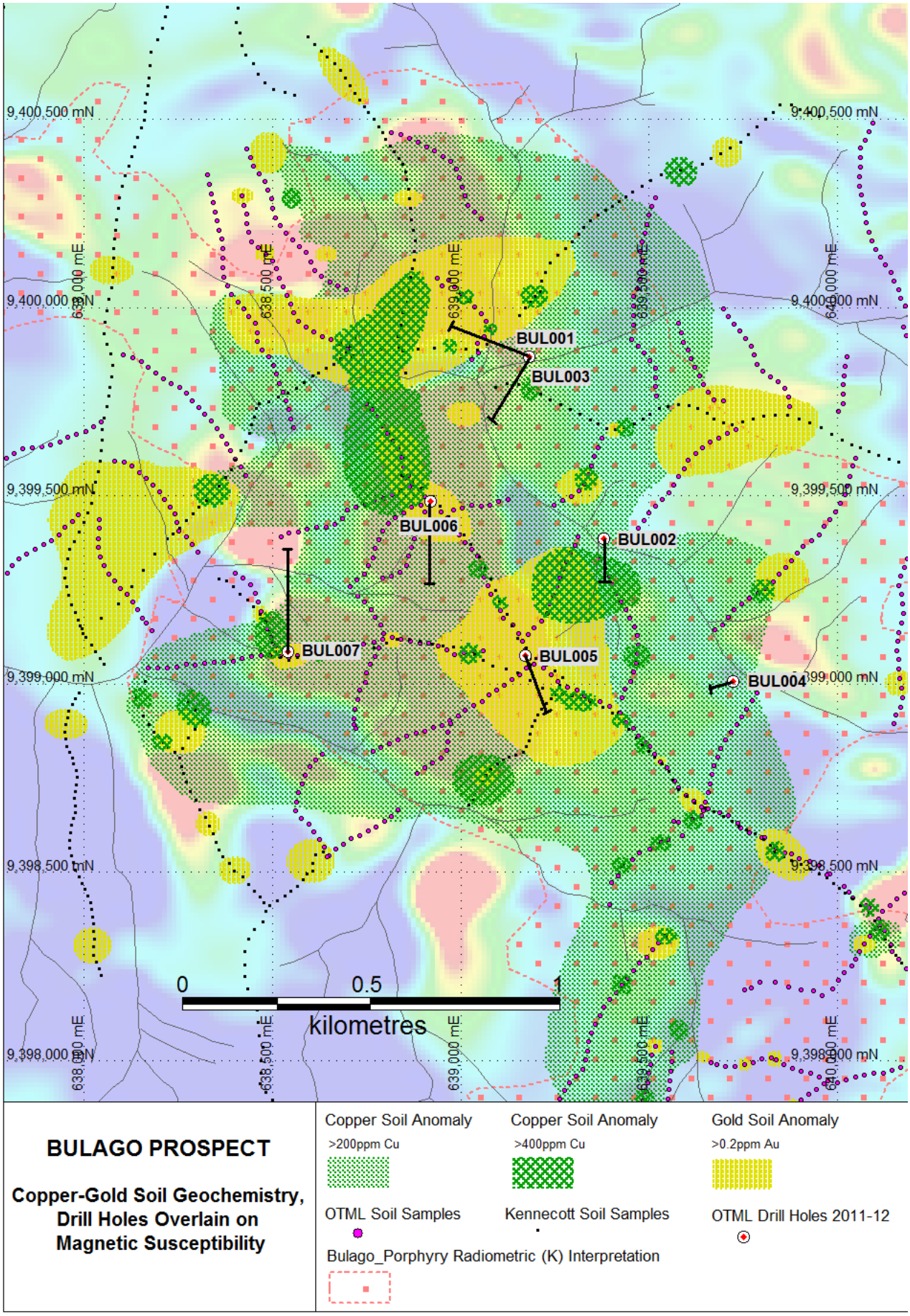
However the geochemistry of the float boulders does not match that from the occurrences of skarn sampled by OTML upstream. Gold, copper, lead, zinc and silver are highly anomalous from one of the Kennecott samples and it is likely that other occurrences high-grade skarn mineralisation are present in these headwaters.



Bulago Porphyry Soil Geochemistry Cu Mo Au



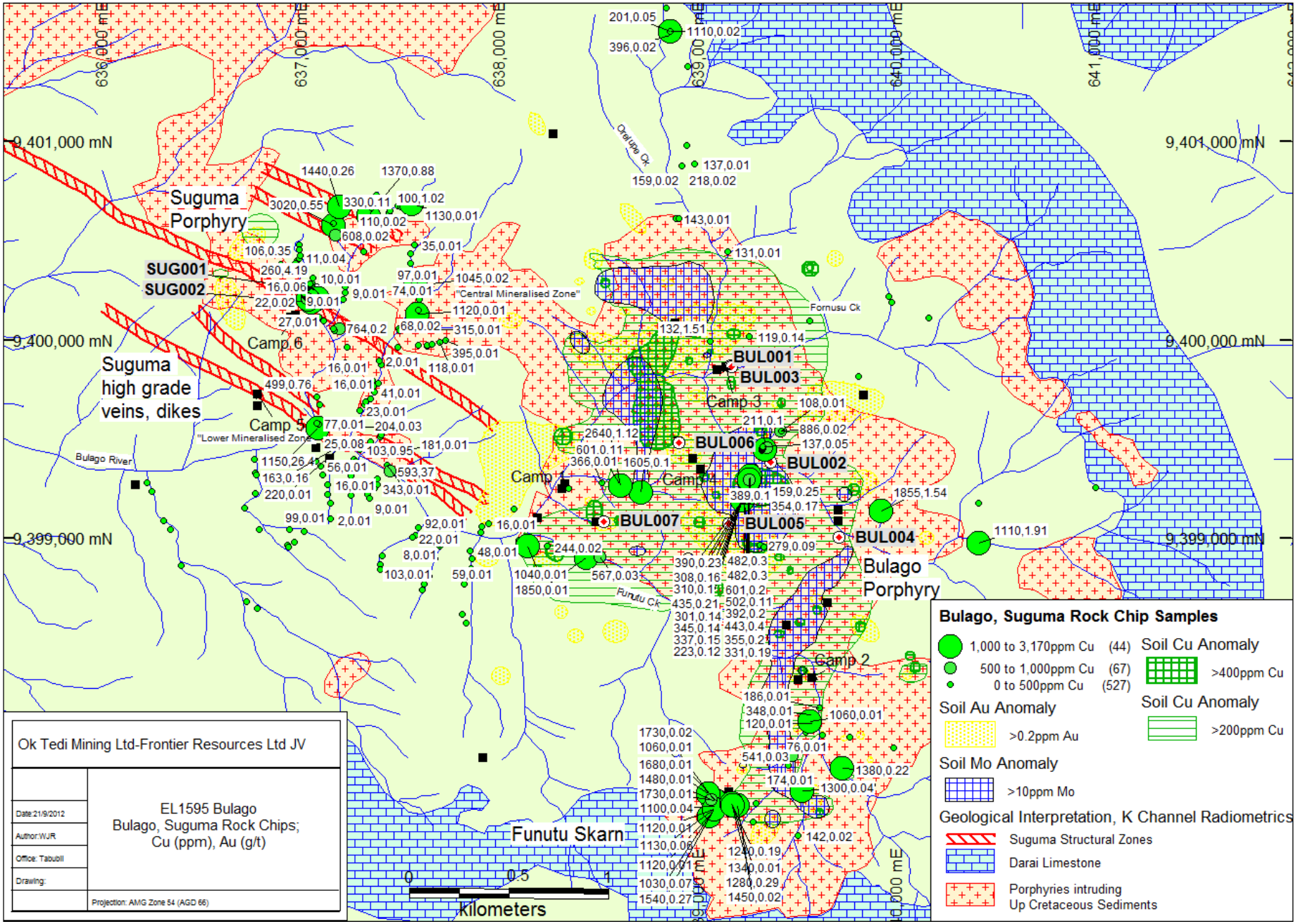
Bulago Soil Geochemistry Cu Pb Zn As



Bulago Porphyry Soil Cu-Au Geochemistry, Drill Hole Locations

Bulago Rock Chip Samples

There has been limited reconnaissance mapping and rock chip sampling beyond the Bulago Porphyry. Selected high-grade samples assaying >0.1% Cu or >1.0g/t Au are listed below.



Suguma Rock Chip Samples, Cu, Au Assays

Sample ID	Creek	Au (ppm)	Cu (ppm)	As (ppm)	Pb (ppm)	Zn (ppm)	Main Lithology	Minor Lithology	Main Sulphides	Pct Main Sulphides	Minor Sulphides	Pct Minor Sulphides	Trace Sulphides	Oxidation State
PGXSS000012	Upper Fornusu	0.02	1110	27	11	157	Diorite	Monzodiorite	Pyrrhotite	2.5-5	Pyrite		Covellite	OX
PGXSS000028	Upper Bulago	1.54	1855	9	177	18900	Shear	Siltstone	Chalcopyrite	2.5-5	Pyrrhotite		Malachite	OX
PGXSS000029	Upper Bulago	1.91	1110	13	38	2890	Shear	Siltstone	Pyrite		Chalcopyrite		Pyrrhotite	OX
PGXSS000721	Upper Funutu	0.22	1380	10	8	24	Skarn		Pyrrhotite	30-50	Pyrite			Sulphides
PGXSS000726	Lower Fornusu	1.51	132	222	9	10	Diorite		Pyrrhotite	1-2.5	Bornite	0-1		OX
PGXSS000728	Upper Bulago	0.08	1910	6	8	87	Diorite		Pyrite					OX
PGXSS000737	Upper Funutu	0.04	1300	4	6	31	Skarn		Pyrite	1-2.5				na
PGXSS000742	Upper Funutu	0.01	1060	1	15	1195	Skarn		Pyrite		Pyrrhotite			OX
PGXSS002943	Toporo	0.1	1605	3	5	41	Diorite		Pyrite	2.5-5	Chalcopyrite			
BRC0066	Toporo	1.12	2640	666	400	13750	Fault		Pyrite	2.5-5	Chalcopyrite	0-1		n/a

Bulago, Porphyry Rock Samples, Assays

Company	Sample ID	Au (g/t)	Ag (g/t)	Cu (ppm)	Pb (ppm)	Zn (ppm)	As (ppm)	Mo (ppm)
Kennecott	9433	145	112	7800	3408	8.60%	2.08%	n/a
Kennecott	9447	0.086	<1	2320	89	23	<50	n/a
OTML	BRC0059	0.01	1	1040	15	1475		9
OTML	BRC0061	0.01	1	1850	19	63		4

Mapping of the sub-outcrop identified altered diorite and monzodiorite with varying proportions of endoskarn and sulphide skarn. On the basis of iron and sulphur contents these may be separated into;

- sulphide skarn with minor diorite,
- magnetite skarn,
- sulphide & magnetite/calc-silicate skarn with minor diorite,
- magnetite/calc-silicate skarn with minor sulphides and diorite,
- magnetite/calc-silicate skarn with low sulphides, minor diorite,
- altered diorite minor /calc-silicate skarn,

Copper-gold mineralisation is associated with the more Fe-S bearing rocks; the sulphide and sulphide-magnetite-calc-silicate skarns, as expected.

Magnetic anomalies should be present from the presence of pyrrhotite and magnetite but there is no anomaly associated with the sub-outcropping mineralisation found here to date. Small and larger magnetic highs exist near the diorite-limestone contacts elsewhere in the headwaters of Funutu Creek and that of Bulago, Orolupe, Fornusu and Sunguru Creeks, worthy of follow u.

Sample ID	Au (ppm)	Cu (ppm)	Ag (ppm)	Fe (%)	Mo (ppm)	Pb (ppm)	Zn (ppm)	S (%)	Main Lithology	Minor Lithology	Main Sulphides	Pct main Sulphides	Minor Suplhides	Pct Minor Sulphides	Trace Sulphides	Oxidation State
PGXSS000747	0.01	1060	1.5	22.8	5	3	824	17.1	Diorite		Pyrrhotite		Pyrite	2.5-5	Chalcopyrite	OX
PGXSS000748	0.04	1100	1	35.1	3	6	137	20.3	Diorite		Chalcopyrite		Molybdenite	2.5-5	Bornite	OX
PGXSS000749	0.02	1730	1.9	32.5	5	4	422	15.6	Diorite		Chalcopyrite		Molybdenite	2.5-5	Pyrrhotite	OX
PGXSS000751	0.01	1480	1.2	38.2	5	3	252	27.7	Diorite		Pyrite	2.5-5	Chalcopyrite	2.5-5	Pyrrhotite	OX
PGXSS000752	0.01	1730	1.7	38.3	14	9	782	30.7	Diorite		Pyrrhotite	1-2.5	Chalcopyrite	1-2.5	Bornite	OX
PGXSS000753	0.01	326	1.2	33.2	2	6	267	27.9	Diorite		Pyrite		Pyrrhotite		Chalcopyrite	OX
PGXSS002237	0.06	891	0.5	19.5	14	13	1740	14.1	Diorite	Sulphide skarn	Pyrrhotite	2.5-5	Pyrite	1-2.5	Chalcopyrite	OX
PGXSS000781	0.01	1120	0.6	33	13	16	119	15.4	Diorite	Endoskarn	Chalcopyrite	2.5-5	Pyrrhotite	1-2.5		OX
PGXSS000782	0.01	186	0.1	6.41	3	18	66	2.47	Diorite	Monzodiorite	Pyrrhotite		Pyrite	0-1		OX
PGXSS002214	0.03	135	0.1	7.27	2	19	66	0.66	Diorite	Monzodiorite	Pyrrhotite	2.5-5	Pyrite	1-2.5		OX
PGXSS002215	0.03	331	0.2	8.68	11	9	30	2.13	Diorite	Monzodiorite	Pyrrhotite	2.5-5	Pyrite	1-2.5		OX
PGXSS002216	0.01	99	0.3	10.6	2	7	61	0.8	Diorite	Monzodiorite	Pyrrhotite		Pyrite	1-2.5		OX
PGXSS002224	0.01	49	0.1	4.68	0.5	3	260	0.76	Diorite	Endoskarn	Pyrrhotite		Pyrite	1-2.5		
PGXSS002225	0.01	46	0.1	3.84	0.5	3	240	0.73	Diorite	Endoskarn	Pyrrhotite		Pyrite	1-2.5		
PGXSS002230	0.01	559	0.3	22.9	10	6	2950	6.13	Diorite	Sulphide skarn	Pyrrhotite	2.5-5	Pyrite	1-2.5	Chalcopyrite	OX
PGXSS002231	0.02	916	0.3	28.4	10	9	7890	16.5	Diorite	Sulphide skarn	Pyrrhotite	2.5-5	Pyrite	1-2.5	Chalcopyrite	OX
PGXSS000779	0.01	18	0.1	0.6	0.5	2	49	0.28	Limestone		Pyrrhotite	2.5-5	Pyrite	1-2.5		OX
PGXSS002227	0.01	62	0.1	2.41	0.5	4	243	0.72	Limestone	Marble	Pyrrhotite	0-1				OX
PGXSS000776	0.01	6	0.1	0.16	1	1	28	0.11	Marble	Limestone						
PGXSS000772	0.01	1120	1.7	44.7	2	10	17950	33.3	Sulphide skarn		Pyrite	50-100	Pyrrhotite	30-50		OX
PGXSS002238	0.01	1680	0.7	34.6	5	7	750	28	Sulphide skarn	Diorite	Pyrrhotite		Pyrite	2.5-5	Chalcopyrite	OX
PGXSS000746	0	0	0	0	0	0	0	0	Sulphide skarn		Pyrite	50-100	Pyrrhotite	30-50	Bornite	OX
PGXSS002232	0.29	1280	1	22.1	8	7	133	4.76	Sulphide skarn	Diorite	pyrrhotite		Pyrite	2.5-5	Chalcopyrite	OX
PGXSS002234	0.29	182	0.1	37.4	1	5	44	3.94	Sulphide skarn	Diorite	pyrrhotite	2.5-5	Pyrite	2.5-5		OX
PGXSS002235	0.76	407	1.9	13.85	4	26	316	4.17	Sulphide skarn	Diorite	pyrrhotite	2.5-5	Pyrite	1-2.5		
PGXSS002236	0.01	1340	0.2	45	1	8	82	15.2	Sulphide skarn	Diorite	pyrrhotite		Pyrite	1-2.5		OX
PGXSS000777	0.27	1540	0.1	39	7	5	49	21.8	Endoskarn	Diorite	Chalcopyrite	2.5-5	Pyrrhotite	1-2.5	Bornite	OX
PGXSS000778	0.07	1030	0.2	32.6	3	4	150	16.9	Endoskarn	Diorite	Chalcopyrite	2.5-5	Pyrrhotite	1-2.5	Bornite	OX
PGXSS000780	0.06	1130	0.1	31.1	5	29	97	15.4	Endoskarn	Diorite	Chalcopyrite	2.5-5	Pyrrhotite	1-2.5		OX
PGXSS002217	0.19	1240	0.4	23.6	4	14	86	21.7	Endoskarn	Diorite	Pyrrhotite		Pyrite	0-1		OX
PGXSS002218	0.01	149	0.1	13.5	0.5	3	52	0.93	Endoskarn	Diorite	Pyrrhotite		Pyrite	1-2.5		OX
PGXSS002219	0.02	1450	0.4	37.8	1	7	61	20.6	Endoskarn	Diorite	Pyrrhotite		Pyrite	1-2.5		OX
PGXSS002220	0.01	200	0.2	9.1	1	3	270	3.14	Endoskarn	Diorite	Pyrite		Pyrrhotite	1-2.5		OX
PGXSS002221	0.06	525	0.4	24	1	10	743	15.7	Endoskarn	Diorite	Pyrite		Pyrrhotite	1-2.5		OX
PGXSS002222	0.01	293	0.1	11.2	1	3	231	5.35	Endoskarn	Diorite	Pyrite		Pyrrhotite	1-2.5		OX
PGXSS002226	0.03	37	0.3	4.64	0.5	2	4510	1	Endoskarn	Diorite	Pyrite		Pyrrhotite	1-2.5		OX
PGXSS002228	0.01	12	0.1	2.29	0.5	1	490	0.24	Endoskarn	Diorite	Pyrite		Pyrrhotite	1-2.5		OX
PGXSS002229	0.01	252	0.1	8.7	0.5	3	2300	4.72	Endoskarn	Diorite	Pyrite		Pyrrhotite	1-2.5		OX

Funutu Skarn Rock Chip Samples, Assays

Drilling

Drill Hole Target Summary

Drill holes BUL001-007 at Bulago were designed to test geochemical, geophysical and geological targets as follows:

BUL001: Located within the north-eastern part of the 200ppm Cu soil anomaly, 400m east of the northern 400ppm Cu soil anomaly and adjacent to an extensive partly coincident >0.2 g/t Au soil anomaly. Planned to intersect the magnetic anomaly at depth as modelled from 3D inversion of airborne magnetic survey.

BUL002: Located on the margins of the 200ppm Cu soil anomaly, a 0.2 g/t Au soil anomaly and targeting a zone of 400ppm Cu in soils. Mineralised intrusive with potassic alteration mapped along a structural trend. No significant magnetic anomalies.

BUL003: Located within the north-eastern part of the 200ppm Cu soil anomaly, 400m east of the northern 400ppm Cu soil anomaly and adjacent to an extensive partly coincident 0.2 g/t Au soil anomaly. Planned to intersect the magnetic anomaly at depth as modelled from 3D inversion of airborne magnetic survey. Drilled from same location as BUL001 and orthogonal to that hole.

BUL004: Located on the margin of 200ppm Cu soil anomaly. Mapped mineralised intrusive contact. No significant magnetic anomaly.

BUL005: Located on Toporo Ridge near the centre of the 200ppm Cu soil anomaly, within a 0.2 g/t Au soil anomaly and surrounded by isolated 400ppm Cu soil anomalies. On the margin of the magnetic anomaly.

BUL006: Located on Toporo Ridge near the centre of the 200ppm Cu soil anomaly, within a small 0.2 g/t Au soil anomaly and adjacent to the main 400ppm Cu soil anomaly. At the centre of the main magnetic anomaly.

BUL007: Collared on the margins of the 200ppm Cu anomaly in a small 0.2 g/t Au soil anomaly, near a small area of 400ppm Cu in soils to test part of the main magnetic anomaly and an outlier of it.

DH_ID	AGD66_E*	AGD66_N	RL (m)	Azimuth (mag)	Dip	TD	Hole started	Hole finished
BUL001	639180	9399870	1653	290	-60	440.3m	11-Dec-11	23-Jan-12
BUL002	639379	9399385	1716	180	-70	331.1m	25-Jan-12	13-Feb-12
BUL003	639182	9399868	1654	210	-60	389.6m	05-Feb-12	18-Feb-12
BUL004	639723	9399006	1799	256	-60	115.0m	18-Feb-12	23-Mar-12
BUL005	639171	9399075	1927	160	-70	363.1m	29-Feb-12	02-Apr-12
BUL006	638919	9399485	1801	180	-60	422.4m	09-May-12	12-Jun-12
BUL007	638540	9399086	n/a	0	-65	649.6m	19-Apr-12	01-May-12
	* coordinates by handheld GPS							

Drill Hole Data

Bulago 'Porphyry' Drill Results

Detailed logs and all assays have not been provided herein. Assay intercepts are summarised in the Table below.

BUL001 returned the most encouraging Cu and Au intersections of 124m of 0.13% Cu from 119m (no significant gold), 76m of 0.15% Cu from 267m including 68.1m of 0.17g/t Au from 275m (that includes 33m of 0.22g/t Au from 293m), 68.5m of 0.22g/t Au from 359.5m (no significant copper), and 12.7m of 0.11% Cu from 371.8m.

The upper copper intersection from 119m is from biotite-k-feldspar-epidote-actinolite-quartz-magnetite-pyrite-titanite altered monzodiorites and plagioclase-hornblende diorite porphyries. Chalcopyrite is disseminated and in veins while trace molybdenite is present in quartz veins and their selvages (best assay of 0.013% Mo). Veins include actinolite-epidote-pyrite-chalcopyrite, quartz-pyrite+/-chalcopyrite, pyrite and quartz-molybdenite types. Fractures have chlorite-magnetite-epidote and chlorite-sericite-pyrite altered selvages. Anhydrite first appears at 226m as pervasive alteration and anhydrite-pyrite veins.

The lower copper intersection from 267m with gold from 275m is in mostly monzodiorite with a short section of siltstone. In the intrusive early quartz veins are crosscut by chlorite-epidote-pyrite veins that are in turn crosscut by late anhydrite+/-sulphide veins and it is apparent that the gold is associated with anhydrite alteration, consistent with higher Ca assays through this section. There are also chlorite-epidote-magnetite veins, k-feldspar veins with biotite-chlorite altered selvages and fractures with epidote-magnetite altered selvages.

The lowermost gold intersection with a short interval of 0.11% Cu is from monzodiorites with two narrow feldspar porphyry ?dikes, with anhydrite-pyrite veins with epidote selvages, anhydrite-chlorite-sericite-sulphide veins, anhydrite+/-quartz-sericite-pyrite-chalcopyrite veins, quartz+/-pyrite veins and k-feldspar veins. Gold is similarly associated with anhydrite and the interval of copper mineralisation is associated with elevated K assays possibly from secondary K-feldspar.

Bulago Drill Results to Date

Hole ID	From (m)	To (m)	Intercept Length (m)	Gold (g/t)	Copper (ppm)
BUL001	29.5	39.0	9.5	0.32	137
plus	119.0	343.1	224.1	0.06	**1255**
incl	267.0	343.1	76.1	0.16	**1510**
plus	359.5	369.2	9.7	0.21	124
plus	**371.8**	**384.5**	**12.7**	**0.10**	**1061**
plus	385.6	388.0	2.4	0.54	550
plus	407.0	428.0	21.0	0.42	100
incl	**422.0**	**425.0**	**3.0**	**2.04**	101
Entire Hole	439.0	440.3	1.3	0.10	828
BUL002	**27.8**	**91.0**	**63.2**	**0.10**	**1152**
incl	**86.1**	**87.0**	**0.9**	**1.32**	585
BUL003	19.1	389.6	370.5	0.06	347
incl	63.5	139.4	**75.9**	0.04	674
plus	**367.1**	**373.0**	**5.9**	**1.71**	92
plus	**379.0**	**381.0**	**2.0**	**0.50**	178
BUL004	**80.0**	**81.5**	**1.5**	**1.22**	280
BUL005	0.0	363.1	363.1	0.09	95
incl	**197.0**	**199.0**	**2.0**	**1.80**	173
BUL006	**20.5**	**22.0**	**1.5**	**3.19**	158
plus	**83.9**	**85.5**	**1.6**	**2.57**	199

BUL007 weighted assay drill results

Depth From (m)	Depth To (m)	Intercept Length (m)	Gold (g/t)	Copper (%)
62.0	71.1	9.1	0.13	
134.2	143.0	8.8	0.16	
155.0	160.0	5.0	0.11	
175.0	179.0	4.0	0.20	
189.0	199.0	10.0	0.11	
243.0	338.3	95.3	0.15	
350.0	411.0	61.0	0.18	0.10
432.7	438.0	5.3	0.15	
496.0	502.0	6.0		0.11
507.4	513.0	5.6	0.18	0.28
519.0	527.0	8.0		0.11
538.8	581.0	42.2	0.11	0.14
597.0	601.0	4.0		0.12

BUL002 intersected monzodiorite and feldspar porphyry from 27.8-91m that assayed 63.2m of 0.12% Cu, 0.10g/t Au, the best mineralised section, while the overall grade of the hole was 319.2m of 0.05% Cu, 0.08g/t Au. Gold-only intersections include 20.9m of 0.17g/t Au from 70.1m, 41m of 0.15g/t Au from 192m, 2m of 0.45g/t Au from 245m and 14.7m of 0.16g/t Au from 254.2m. The intrusives are weakly chlorite-epidote-magnetite altered, appear to have been overprinted by sericite-clay-chlorite-quartz-pyrite, and contain 2-10% pyrite, weak chalcopyrite and trace molybdenite (assays up to 0.0039% Mo). Copper increases towards the bottom of the hole from 254m in K-feldspar-biotite-magnetite-chlorite-epidote-actinolite altered monzonite porphyry, monzodiorite and feldspar porphyry, towards the 400ppm Cu soil anomaly. The gold intersections are associated with faults and brecciation, quartz-sericite-chlorite-clay-pyrite alteration and zones of chlorite-epidote-actinolite

alteration. The magnetic susceptibility of the core is overall low throughout the hole, consistent with the absence of a magnetic anomaly here.

BUL003 intersected a short interval of 8m of 0.11% Cu and 0.05g/t Au from 128 (part of a lower grade zone of 0.07% Cu from 63.5-139m) and 18.3m of 0.66g/t Au from 364.7m, otherwise the overall grade of the hole was 0.03% Cu, 0.06g/t Au. The copper intersection is from monzodiorite with K-feldspar-biotite-quartz-chlorite-actinolite-magnetite alteration overprinted by late sericite-pyrite-quartz alteration. Sulphides comprised 2-5% pyrite with trace chalcopyrite, consistent with the assays. The lower gold intersection is from a chlorite-illite/kaolinite-carbonate-pyrite altered fault zone in epidote-chlorite altered diorite. Magnetic susceptibility is low throughout the upper part of the hole including the copper mineralised section, but rises in the lower part of the hole from about 270m consistent with the 3D model. From here the intrusives are mostly unaltered-weak chlorite-epidote altered, copper is very low and the magnetic susceptibility is probably derived from primary magnetite in an unaltered-weakly altered rock.

BUL004 was terminated due to high water inflow. There were no mineralised intersections and the hole averaged 105.4m of 0.03% Cu, 0.04g/t Au. The interval from 0-81.5m comprises weak chlorite-epidote-magnetite altered diorite/monzodiorite with intervals averaging 240-325ppm Cu alternating with intervals of <83ppm Cu. From 81.5-115m the monzodiorite is biotite-?K-feldspar-magnetite-quartz-pyrite altered and the copper grade averages 312ppm Cu. Magnetic susceptibility is low but decreases further with the change in alteration and copper geochemistry downhole. Better copper mineralisation may have been expected if the hole had been able to be continued.

BUL005 intersected no significant copper mineralisation; it averaged 363.1m of 0.01% Cu, 0.09g/t Au. There were zones of low-grade gold; 47.1m of 0.15g/t Au from 6.9m, 4m of 0.26g/t Au from 207m, 21.3m of 0.19g/t Au from 298m and 6.1m of 0.22g/t Au from 357m. The hole intersected hornblende diorite from surface to 358.2m then passed into a fault zone with monzodiorite, which is weakly mineralised with gold, base metals and arsenic, where the hole was terminated in bad ground. Weak chlorite-epidote-pyrite alteration persists from surface to about 200m where it changes to chlorite-epidote magnetite-pyrite. K-feldspar-biotite-quartz-chlorite-actinolite-epidote-magnetite first appears around 300m and continues to the fault near the bottom of the hole. The low grade gold mineralisation is apparently associated with chlorite-epidote-actinolite-magnetite-pyrite alteration, pyrite-epidote veins and pyrite fractures. Base metals are slightly elevated in this hole. The magnetic susceptibility is elevated, consistent with the margins of the magnetic anomaly.

BUL006 intersected no significant copper mineralisation and the average grade over the hole is 422.4m of 0.01% Cu, 0.04g/t Au. Short gold intersections include 1.5m of 3.19g/t Au from 20.5m, 1.6m of 2.06g/t Au from 83.9m and 4m of 0.16g/t Au from 96m. Monzodiorite was logged throughout the hole. Chlorite-actinolite-magnetite-pyrite alteration is present throughout accompanied by intervals of weak K-feldspar alteration and veins. Quartz-sericite-clay-pyrite alteration is confined to narrow faults and shear zones. The gold intersection from 83.9m is accompanied by elevated base and toxic elements and is probably related to a narrow shear/fault zone. The overall magnetic susceptibility is high, consistent with its position at the centre of the magnetic anomaly.

BUL007 intersected variably altered diorite, hornblende diorite, monzodiorite, intrusion breccia and felsic dike. From 0-110.9m the hornblende diorite/monzodiorite is quartz-K-feldspar-biotite-magnetite-chlorite-sericite altered with 2-5% disseminated, fracture and vein-fill pyrite and quartz-pyrite, K-feldspar+/-quartz-pyrite and quartz-biotite-chlorite-pyrite-trace chalcopyrite veins and veinlets.

From 110.9-507.2m diorite and hornblende diorite/porphyry are calc-potassic altered with assemblages of quartz+/-K-feldspar-biotite-chlorite+/-sericite+/-actinolite+/-epidote-magnetite alteration with 1-4% disseminated, fracture and vein-fill sulphides of mostly pyrite with minor visible chalcopyrite and molybdenite. Veins include assemblages of quartz, K-feldspar, chlorite, sericite, epidote, actinolite, magnetite and sulphides.

The intrusion breccia from 507.2-509.8m is potassic (quartz-K-feldspar) altered with 3-5 % sulphides of mostly pyrite with minor chalcopyrite and molybdenite.

Diorite and hornblende diorite from 509.8-612.6m are variably calc-potassic (chlorite+/-sericite-actinolite-epidote+/-biotite+/-magnetite altered with up to 3% sulphides of mostly pyrite with minor chalcopyrite and

molybdenite as disseminations and fracture and vein fills. Veins comprise assemblages of quartz, K-feldspar, biotite, actinolite, epidote, chlorite, sericite, magnetite and sulphides.

Quartz-sericite pyrite alteration with 3-10% disseminated, fracture and vein-fill sulphides is confined to narrow zones in a felsic dike and diorite. Pyrite is predominant with minor chalcopyrite and molybdenite. Veins comprise quartz+/-carbonate+/-K-feldspar+/-epidote.

From 612.6-649.45m alteration decreases in intensity in the diorite and hornblende diorite where secondary biotite is overprinted with chlorite+/-sericite+/-actinolite and contains 1-3% disseminated, fracture and vein-fill sulphides of mostly pyrite with minor chalcopyrite and molybdenite. Veins are comprised of quartz, biotite, sericite, epidote, actinolite, magnetite and sulphides.

Interpretation of Drill Results

Seven drill holes were completed for a total of 2711.1m to test the Cu-Mo-Au soil geochemical anomalies and the underlying magnetic anomalies. They all intersected a variety of diorites, hornblende diorites, feldspar porphyries, monzodiorites and intrusion breccias as logged. Limited thin section petrography from BUL001, (Crawford, 2012, Appendix 7), indicates a medium-K calc-alkaline diorite association with similarities to alkalic porphyries. Preliminary 3D modelling of the holes has also been carried out, (Appendix 8).

BUL001 north of Bulago River returned the most significant results including 124m of 0.13% Cu from 119m, 76.1m of 0.15% Cu from 267m, 68.1m of 0.17g/t Au from 275m, 33m of 0.22g/t Au from 293m and 68.5m of 0.22g/t Au from 359.5m from an overall grade from the entire hole of 440.3m of 0.08% Cu, 0.1g/t Au. The core is variably potassic-calc-potassic (k-feldspar-biotite-actinolite-epidote-magnetite-chlorite-anhydrite-pyrite) altered with minor chalcopyrite. This hole extended into the northern gold soil anomaly but did not reach the northern 400ppm Cu anomaly. The alteration is typical of the outer core zone of a mineralised alkali porphyry intrusive complex.

BUL003, adjacent to BUL001, intersected 75m of low grade copper mineralisation containing a short interval of 8m of 0.11% Cu in the upper part of the hole. The copper intersection is from monzodiorite with calc-potassic (K-feldspar-biotite-quartz-chlorite-actinolite-magnetite) altered intrusives similar to BUL001. The lower gold intersection of 18.3m of 0.66g/t Au from 364.7m, is from a chlorite-illite/kaolinite-carbonate-pyrite altered fault zone in epidote-chlorite altered diorite. The intrusives are mostly unaltered-weak chlorite-epidote altered in the lower part of the hole , copper is very low, and it is apparent that hole drilled away from the mineralisation in BUL001.

BUL002 returned the second most important mineralised intersection from the upper part of the hole but copper increases towards the bottom of the hole in K-feldspar-biotite-magnetite-chlorite-epidote-actinolite altered intrusives beneath the eastern 400ppm Cu anomaly.

BUL004 intersected biotite-?K-feldspar-magnetite-quartz-pyrite alteration downhole with an increase in copper mineralisation and better copper mineralisation is anticipated at depth that may be part of the same mineralisation from BUL002 beneath the eastern 400ppm soil copper anomaly.

BUL005 intersected near-surface zones of low-grade gold mineralisation in chlorite-epidote-actinolite-magnetite-pyrite altered intrusives sufficient to explain the soil anomaly and at depth it terminated in a fault zone with weak gold-base metal geochemistry. Alteration increases in intensity downhole and calc-potassic (K-feldspar-biotite-quartz-chlorite-actinolite-epidote-magnetite) alteration appears around 300m but is not copper mineralised. It may be peripheral to the mineralisation expected at depth between BUL002 and BUL004.

BUL006 intersected barren chlorite-actinolite-magnetite-pyrite alteration with intervals of weak K-feldspar alteration and veins at the centre of the main magnetic anomaly. The central part of the magnetic anomaly may not be significantly mineralised and the hole drilled away from the main 400ppm Cu anomaly to the north.

- **BUL007** was drilled on the western margin of the 200ppm soil Cu anomaly and the underlying magnetic anomaly. It intersected extensive sections of calc-potassic (chlorite-actinolite-epidote-magnetite-K-feldspar-biotite-silica-pyrite) alteration with chalcopyrite-molybdenite mineralisation and is awaiting

sample preparation and assay. The alteration is similar to that from holes BUL001 and BUL003 however visual estimates of the copper grades are less than that reported from BUL001. The hole lies approximately 1km southwest of holes BUL001 and BUL003 and 500m from the centre of the northern 400ppm Cu soil anomaly. Holes BUL001 and BUL003 lie 400m northeast of this soil anomaly and although reported encouraging grades also did not extend beneath the 400ppm copper anomaly. These 3 holes have intersected low-grade copper mineralisation that is believed to lie peripheral to a higher grade core situated beneath the 400ppm Cu soil anomaly.

- The porphyry geochemistry indicates two mineralisation events /zones, being copper + gold and gold only and significant weighted assay intercepts from BUL007 are:
- 95.3m grading 0.15 g/t gold (from 243m).
- 61.0m grading 0.18 g/t gold plus 0.10 % copper (from 350m).
- 42.2m grading 0.11 g/t gold plus 0.14% copper (from 538.8m down hole).

Conclusions from Drill Holes

Limited petrography identifying transitional potassic-calc-potassic alteration suites, coupled with the apparently complex suite of intrusives suggest similarity with alkali porphyries at Cadia in NSW, Dinkidi in the Philippines and British Columbia, (Wilson A.J. et al, 2003, Wolfe R.C et al, 2011, Devine, 2011). These are typically elongate vertically with a small planar cross-section in which high-grade copper-gold mineralisation is confined to a core of intense calc-potassic alteration and quartz-sulphide veins containing bornite, surrounded by zones of outer calc-potassic and potassic alteration where bornite is replaced successively by chalcopyrite and pyrite in abundance. Alteration haloes are typically narrow reaching only 200-300m from the mineralised core. The results of the soil geochemistry and drilling at Bulago suggest that two high-grade cores may be located at depth broadly bounded by holes BUL001,003, 006 and BUL007 in the north and at depth broadly bounded by holes BUL002, 004,005 in the east.

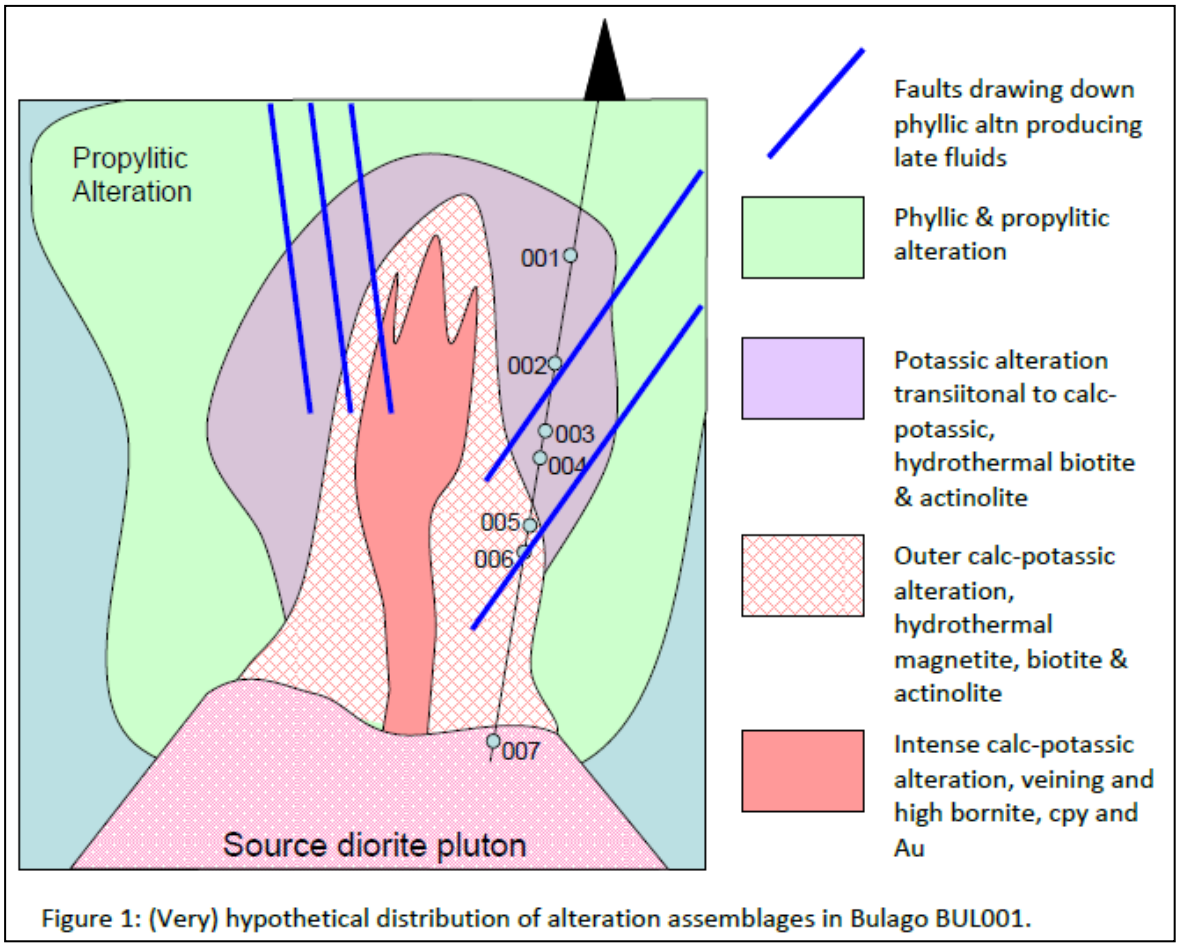
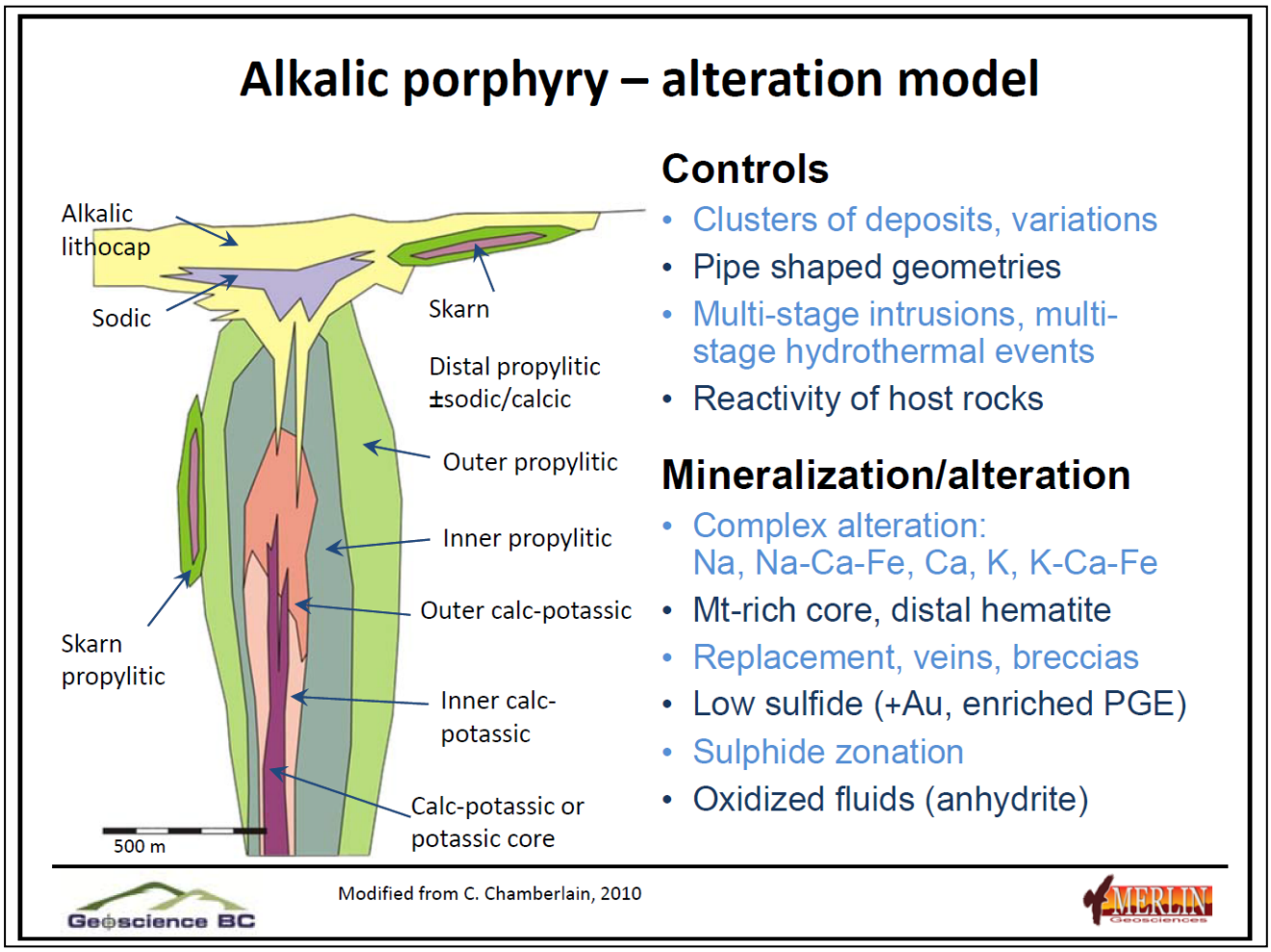


Figure 1: (Very) hypothetical distribution of alteration assemblages in Bulago BUL001.

Hypothetical Cross Section BUL001, (Crawford, 2012)



Devine 2011, Alkalic Porphyry Deposits in British Columbia. Geoscience BC.

SUGUMA

Introduction

Suguma Prospect lies 2.5km northwest of the Bulago Porphyry and soil Cu-Au anomaly. Reports of common free gold from pan concentrates and stream sediment Au-Zn-Pb-Cu anomalies lead previous explorers to two sub-parallel WNW-ESE trending zones of faults and brecciation, multiple intrusion of porphyritic dikes and sills of variable composition and alteration and narrow quartz-sulphide veins and breccias, sampling of which gave high-grade gold and base metal assays.

The JV agreement with Frontier Resources required OTML to drill 500m of core by end of May 2012.

OTML remapped the prospect area, mineralised veins and breccias, altered and mineralised dikes mapped previously and relocated the collars of 5 drill holes by Equatorial Gold NL in 1988.

Equatorial Drill Hole ID	AGD66 E	AGD66 N	RL (m)	Azimuth	Dip	TD (m)
DDH-S1	636929	9399884	1453	28	-45	246.7
DDH-S2	637009	9400000	1491.8	28	-45	146.3
DDH-S3	637130	9399851	1440	36	-45	226.9
DDH-S4	637059	9400082	1508.3	43	-75	81.25
DDH-S5	637132	9400194	1624.2	0	-90	128.1

Suguma Equatorial Gold NL Drill Holes, 1988

Ridgeway Cu-Au Deposit (Wilson et al, 2003, Economic Geology Vol 8, 2003)

Geological Mapping

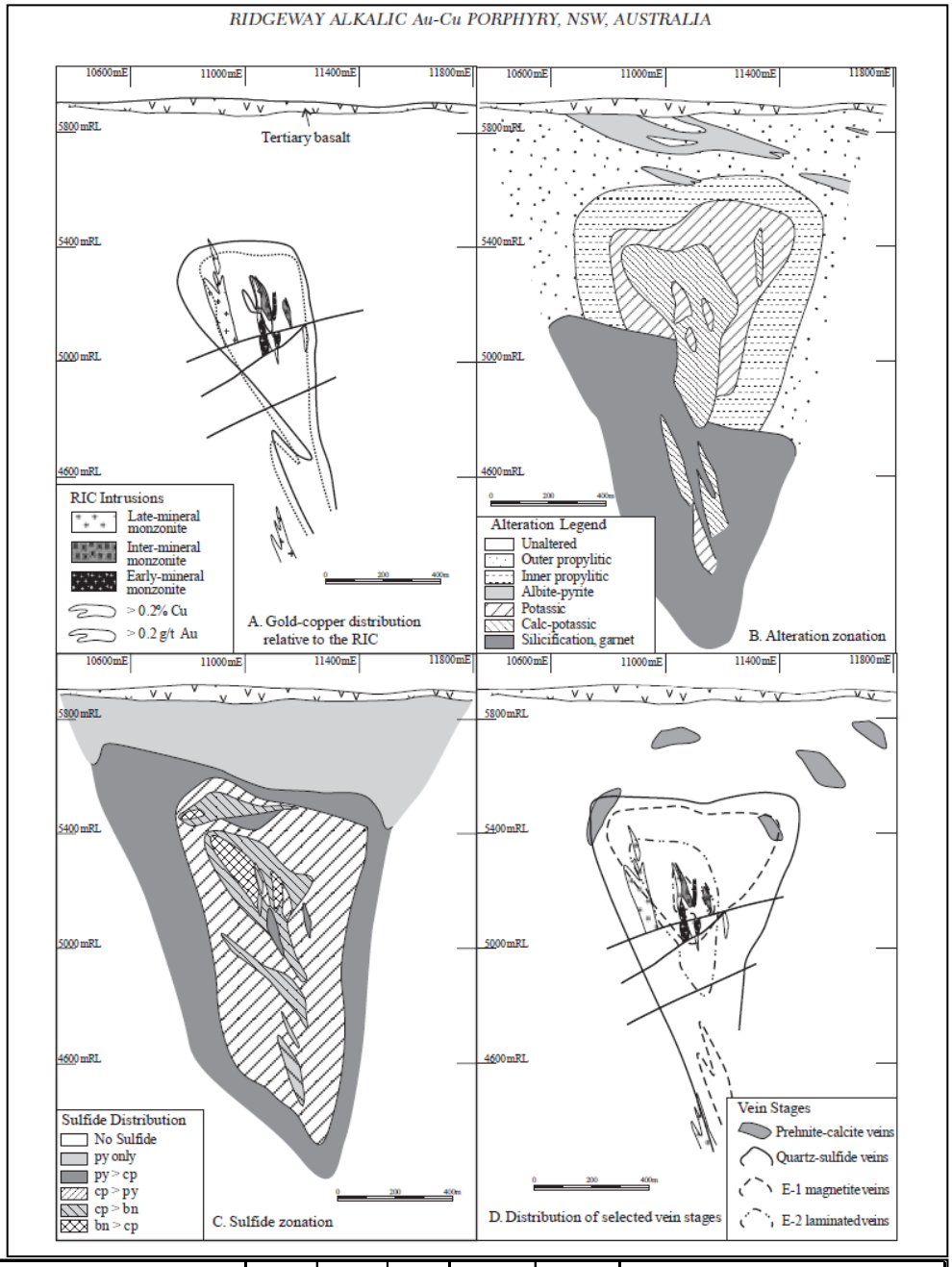
Suguma and Kapia Creeks were remapped in detail and outcrops of mineralised veins and breccias, altered dikes and sediments were sampled.

Suguma Structures, Geology and Orientation

Suguma Soil Sampling

Seven lines of close-spaced (10m) ridge and spur soil samples were completed between the creeks to assist with tracing the mineralised zones over a potential strike length of 500m as mapped by previous explorers.

Results for Cu, Pb, Zn, As are contoured. Copper is not anomalous except for two isolated anomalies in the Kennecott soil data over the Suguma Porphyry immediately west of



Structure	AGD66 Easting	AGD66 Northing	RL (m)	Structure Dip (T)	Dip Direction (T)	Location
Quartz-sulphide-py fault breccia vein, 4cm thick, 0.86 g/t Au	637041	9400196		55	195	Central Suguma ck, Lower zone
Quartz-sulphide-py fault breccia vein, 30cm thick, 24.2 g/t Au	637059	9400269		40	225	Central Suguma ck, Upper zone
Wes Vein: quartz-py-cpy crackle vein infill, 20cm thick	637079	9400198		40	25	Central Suguma ck
Quartz-sulphide-py breccia vein, 1m thick	637180	9400088		50	200	East Suguma ck, Lower zone
Bedding in dark grey carbonaceous siltstone	637180	9400090	1613	52	180	East Suguma creek
Orientation of hornblende diorite dike	637202	9400117	1613	70	200	East Suguma creek
Quartz-sulphide-py fault breccia vein, 20-40cm thick, limonite stained	637000	9400297	1716	50	200	West Suguma ck, upper zone
Quartz-sulphide-py fault breccia vein, 20-40cm thick, limonite stained	636093	9400088		40	200	West Suguma ck, upper zone
Bedding in dark grey mudstone	637012	9400320		5	360	West Suguma ck
Max Vein: vuggy 20cm thick Qtz-sulphide vein under leucocratic microdiorite dike contact (siltstone hosted)	637022	9400278	1680	15	25	West Suguma ck
Bedding in grey siltstone	637288	9399588		60	156	Lower Kapia creek

Suguma Creek. Lead (>22ppm Pb) outlines a broad anomaly over the "Central Mineralised Zone" and a smaller anomaly over the "Lower Mineralised Zone". These reduce to isolated spots on adjacent lines at >100ppm Pb. Zinc, >130ppm Zn identifies small zones in the centres of the "Central Mineralised Zone" and Lower "Mineralised Zone" and elsewhere. Anomalous arsenic, >13ppm As, defines a narrow sinuous zone through the centre of the "Central Mineralised Zone" coincident with some of the lead anomalies >100ppm Pb and adjacent to lead anomalies ranging from 38-100ppm Pb. Other isolated arsenic anomalies are closely associated with other lead and zinc anomalies elsewhere. Gold is not anomalous.

Suguma Rock Chip Sampling

Initial resampling of altered intrusives and quartz-sulphide veins and breccias and the surrounding siltstones by OTML (Niru and Kepa, 2011) at Suguma returned similar high grade gold-silver-base metal results to previous explorers, (samples BRC0016-48, PGXSS000184-239. This included quartz-base metal veins assaying from 1.46 to 16.45g/t Au, weakly altered diorite 400m in a tributary upstream from Suguma that assayed 37g/t Au (PGXSS000032) and samples of hornfelsed siltstone with disseminated pyrrhotite assaying 9.71 to 71.3g/t Au (PGXSS000188, 190, 192, (Niru and Kepa, 2011).

During more detailed mapping and sampling this reporting period a total of 87 rock chip samples were taken. Samples with assays of >1000ppm Cu or >1.0g/t Au are summarised also in in a tab;le below (samples PGXSS003017-3076).

Southern Horizon (OTML- Wes Vein) assayed from 1.21 to 151g/t Au and 20.6 to 75.2g/t Ag, with high base metals.

The weakly altered diorite in the tributary upstream from Suguma was re-sampled (PGXSS00755-773) but the results are not significant and a sample mix-up or contamination is suspected.

Further sampling of hornfelsed sandstones and siltstones adjacent to veins and in the footwall of Wes Vein (PGXSS003036, 3043,3047) returned 4.68 to 13.05g/t Au and 15.4 to 51.1g/t Ag, supporting the earlier sampling and suggesting the potential for bulk lower-grade Au-Ag mineralisation in the hanging and footwall sediments to the quartz veins, to be tested by drilling.

Six samples from reconnaissance during the previous reporting period in the headwaters of Suguma Creek (PGXSS00219, 230, 223, 234, 237 and BRC0048) of diorite and siltstone assayed from 100-3020ppm Cu and 0.01- 4.02 g/t Au. These warrant follow up.

Interpretation of Suguma Soil and Rock Chip Geochemistry

Soil sampling at Suguma outlined two elongate lead anomalies coincident with the “Central and Lower Mineralised Zones” as mapped by Equatorial Gold. Within these zones higher concentrations of lead in the soil coincide with spotty arsenic and zinc anomalies and a narrow sinuous zone of anomalous arsenic in the central part of the “Central Mineralised Zone” 500m in length. The soil results are consistent with the base metal mineralisation from nearby outcropping quartz-sulphide, carbonate-sulphide and sulphide veins and breccias in the diorites and surrounding sediments although the high-grade gold assays from rock sampling are not reflected in the soil geochemistry. Lead and arsenic, from galena and arsenopyrite in the veins, are probably the better pathfinder elements.

There was no rock sampling from the “Lower Mineralised Zone” although quartz-sulphide veins in siltstone from Kapia Creek nearby assayed 204ppm Cu (PGXSS003059).

An area of coincident anomalous Pb-Zn-As geochemistry, in close proximity to outcropping veins and breccias with visible base metals and high-grade gold assays, was therefore targeted for drilling two holes to test a model of stacked veins, altered and mineralised dikes and sills controlled by major WNW-ESE structures, and the potential for lower grade gold mineralisation of the surrounding sediments in the centre of the “Central Mineralised Zone”.

Kapia Creek

In the lower part of Kapia Creek, immediately east of Suguma Creek, siltstones are intruded by microdiorite, feldspar porphyry and hornblende diorite sills and dikes, similar to Suguma Creek. Quartz-sulphide veins in hornblende diorite were mapped and sampled at one location, (PGXSS003076) that assayed 1045ppm Cu and 0.02g/t Au. Float includes breccias with quartz-sulphide veins. Float and outcrop of the siltstones and intrusives were chip sampled,(PGXSS003069, 70, 72,73, 74, 75, 78, 79, 80, 81, 82, 83) but the best result was 1120ppm Cu and 0.01g/t Au, (PGX003072).

Sample ID	Au (ppm)	Cu (ppm)	Ag (ppm)	As (ppm)	Pb (ppm)	Zn (ppm)	Main Lithology	Minor Lithology	Main Sulphides	Pct main Sulphides	Minor Sulphides	Pct Minor Sulphides	Trace Sulphides	Oxidation State
BRC0016	26.4	1150	56.2	10000	7630	31700	Siltstone		Pyrite		Sphalerite	2.5-5	Pyrrhotite	Transition
BRC0028	8.49	1880	112	8990	2970	52200	Siltstone		Pyrite	2.5-5	Pyrrhotite	1-2.5	Chalcopyrite	Transition
BRC0030	4.19	260	8.4	4540	964	3410	Diorite		Pyrite	1-2.5	Pyrrhotite	0-1		
BRC0036	2.16	624	6.5	1040	3170	4610	Shear	Siltstone	Pyrite	1-2.5				OX
BRC0048	0.26	1440	1.2	2	5	57	Diorite		Pyrite	1-2.5				NA
PGXSS000032	37	593	34.7	3050	785	19650	Diorite		Pyrite	0-1				NA
PGXSS000184	3.54	1130	64	3630	1820	31800	Siltstone	Quartz-base metal veins	Galena		Sphalerite	2.5-5	Chalcopyrite	
PGXSS000185	8.8	3170	163	3720	4890	67900	Siltstone	Quartz-base metal veins	Galena		Sphalerite	2.5-5	Chalcopyrite	
PGXSS000187	2.63	638	13.5	3870	315	14850	Diorite	Sulphide veins	Galena	2.5-5	Pyrrhotite	1-2.5	Chalcopyrite	
PGXSS000188	71.3	696	31.8	10000	2870	11000	Siltstone		Pyrrhotite	2.5-5				
PGXSS000189	31.3	479	24.2	8520	905	9900	Siltstone	Felsic dike	Pyrite	1-2.5	Pyrrhotite	1-2.5		
PGXSS000190	9.71	60	1.8	1340	121	566	Siltstone		Pyrrhotite	1-2.5				
PGXSS000192	23.6	27	1.3	819	90	229	Siltstone		Pyrrhotite	1-2.5				
PGXSS000210	1.46	88	4.9	1720	141	5000	Quartz-base metal vein		Arsenopyrite	1-2.5	Pyrite	1-2.5		Sulphides
PGXSS000211	17.15	168	10	6740	592	1440	Altered intrusive		Arsenopyrite	2.5-5	Pyrite	1-2.5		Sulphides
PGXSS000212	13	222	21.1	6260	723	7260	Quartz-base metal vein		Arsenopyrite	1-2.5				Sulphides
PGXSS000213	24.2	229	8.5	7670	1535	4630	Altered ? intrusive		Galena		Pyrrhotite	2.5-5		Sulphides
PGXSS000214	16.45	272	7.8	3720	647	619	Quartz-base metal vein		Arsenopyrite	2.5-5	Pyrite	1-2.5		Transition
PGXSS000215	26.8	52	5.4	10000	371	123	Diorite		Pyrrhotite	2.5-5	Arsenopyrite	1-2.5		
PGXSS000219	0.55	3020	0.8	10	5	63	Siltstone	Diorite dike	Pyrite	1-2.5				
PGXSS000223	0.88	1370	1.3	24	26	156	Siltstone		Pyrite	1-2.5	Pyrrhotite	1-2.5		
PGXSS000230	4.02	493	36	46	135	613	Brecciated siltstone		Pyrite	2.5-5				OX
PGXSS000234	1.02	100	0.4	100	40	180	Diorite		Pyrite	2.5-5	Pyrrhotite	1-2.5		
PGXSS000237	0.01	1130	1.1	3	10	853	Intrusive	Quartz-pyrite veins	Pyrite					
PGXSS000239	7.32	145	5.8	43	410	4860	Diorite	Quartz-base metal veins	Arsenopyrite	2.5-5	Pyrrhotite	1-2.5		
PGXSS003017	16.6	529	20.6	17350	813	23600	Sandstone	Quartz-base metal vein (Wes)	Pyrite	2.5-5	Hematite	1-2.5	Sphalerite	OX
PGXSS003018	35.2	402	22.5	13750	751	10600	Sandstone	Quartz-base metal vein (Wes)	Pyrite	2.5-5	Hematite	1-2.5	Sphalerite	OX
PGXSS003024	4.14	1870	48.7	860	3730	53600	Sandstone	Quartz-base metal vein (Wes)	Pyrite	2.5-5	Chalcopyrite	1-2.5	Hematite	OX
PGXSS003031	18.95	2250	75.2	1230	1880	95800	Sandstone	Quartz-base metal vein (Wes)	Pyrite		Hematite	1-2.5		OX
PGXSS003034	105	335	64	65700	2180	6440	Sandstone	Quartz-base metal vein (Wes)	Pyrite		Hematite	1-2.5		OX
PGXSS003036	4.68	699	51.1	2780	483	12650	Sandstone footwall to Wes Vein		Pyrite		Hematite	1-2.5		OX
PGXSS003039	151	502	62.5	44400	1830	13950	Sandstone	Quartz-base metal vein (Wes)	Pyrite		Hematite	1-2.5		OX
PGXSS003042	3.73	1830	46.1	822	1180	26800	Sandstone	Quartz-base metal vein (Wes)	Pyrite		Chalcopyrite	1-2.5	Covellite	OX
PGXSS003043	6.28	775	21.9	1740	1190	22300	Sandstone footwall to Wes Vein		Pyrite	2.5-5	Hematite	1-2.5		OX
PGXSS003045	1.21	2150	49.3	391	1610	46900	Sandstone	Quartz-base metal vein (Wes)	Pyrite			1-2.5	Covellite	OX
PGXSS003047	13.05	427	15.4	2420	207	6970	Sandstone footwall to Wes Vein		Pyrite	2.5-5	Hematite	1-2.5		OX
PGXSS003072	0.01	1120	1.3	2	1	136	Monzodiorite	Sulphide veins	Pyrite		Pyrrhotite	1-2.5	Chalcopyrite	OX
PGXSS003076	0.02	1045	2.5	4	5	173	Feldspar Porphyry	Quartz-sulphide veins	Pyrite		Pyrrhotite	2.5-5	Chalcopyrite	OX

Suguma Selected High Grade Rock Chip Samples, Assays

Drilling

Drill Hole Target Summary

OTML noted that Suguma Prospect drill holes SUG001 and 002, were to test a model for stacked quartz-precious-base metal veins and breccias dipping shallowly to the north and south and altered and mineralised intrusive dikes and sills in sandstones and graphitic siltstones and mudstones controlled by major WNW-ESE structures.

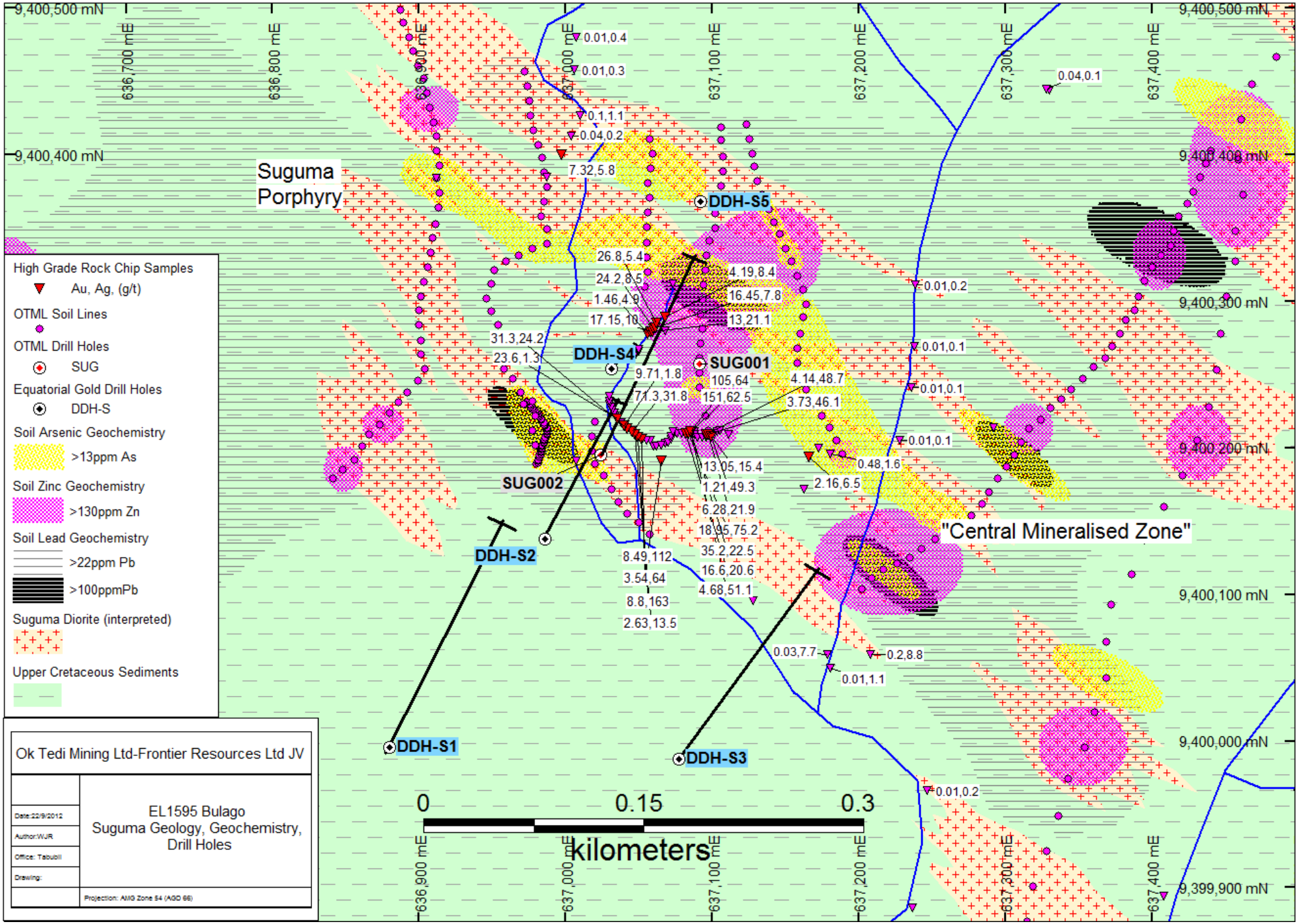
SUG001 was located about 25m to the east the Upper Horizon mineralised outcrop and was 'surrounded by high-grade veins and drilled vertically to test for stacked veins dipping shallowly north and south and dikes and sills. The hole was extended to depth to test for mineralised porphyry.'

SUG002 was sited on south side of the "Central Mineralised Zone" and was intended to test the width and extent of its mineralisation.

SUG001 and 002 weighted drill assay results				
Hole ID	**Depth From (m)**	**Depth To (m)**	**Length (m)**	**Gold g/t**
SUG001	**52.3**	**55.0**	**2.7**	**0.95**
	140.0	143.0	3.0	0.16
	201.3	**203.0**	**1.7**	**1.56**
SUG002	**12.0**	**13.3**	**1.3**	**27.00**
	78.0	**81.0**	**3.0**	**0.86**
	97.4	109.0	11.6	0.11
	171.0	173.0	2.0	0.18
	191.0	204.3	13.3	0.21

DH_ID	AGD66_E*	AGD66_N	RL (m)	Azimuth (mag)	Dip	TD	Hole started	Hole finished
SUG001	637091	9400257	1684	0	-90	329.8m	19-April-12	30-April-12
SUG002	637024	9400195	1647	25	-50	262.1m	05 May-12	16-May-12
	* coordinates by handheld GPS. Accurate surveys to follow.							

Suguma OTML Drill Hole Data


9,400,500 mN
9,400,400 mN
9,400,300 mN
9,400,200 mN
9,400,100 mN
9,400,000 mN
9,399,900 mN
636,700 mE
636,800 mE
636,900 mE
637,000 mE
637,100 mE
637,200 mE
637,300 mE
637,400 mE
Suguma Porphyry
DDH-S1
DDH-S2
DDH-S3
DDH-S4
DDH-S5
SUG001
SUG002
"Central Mineralised Zone"
0.01,0.4
0.01,0.3
0.1,1.1
0.04,0.2
7.32,5.8
0.04,0.1
26.8,5.4
24.2,8.5
1.46,4.9
17.15,10
4.19,8.4
16.45,7.8
13,21.1
31.3,24.2
23.6,1.3
9.71,1.8
71.3,31.8
105,64
151,62.5
4.14,48.7
3.73,46.1
0.01,0.2
0.01,0.1
0.01,0.1
0.01,0.1
0.48,1.6
2.16,6.5
13.05,15.4
1.21,49.3
6.28,21.9
18.95,75.2
35.2,22.5
16.6,20.6
4.68,51.1
8.49,112
3.54,64
8.8,163
2.63,13.5
0.03,7.7
0.2,8.8
0.01,1.1
0.01,0.2
High Grade Rock Chip Samples
Au, Ag, (g/t)
OTML Soil Lines
OTML Drill Holes
SUG
Equatorial Gold Drill Holes
DDH-S
Soil Arsenic Geochemistry
>13ppm As
Soil Zinc Geochemistry
>130ppm Zn
Soil Lead Geochemistry
>22ppm Pb
>100ppmPb
Suguma Diorite (interpreted)
Upper Cretaceous Sediments
Ok Tedi Mining Ltd-Frontier Resources Ltd JV
EL1595 Bulago
Suguma Geology, Geochemistry, Drill Holes
Date:22/9/2012
Author:WJR
Office: Tabubil
Drawing:
Projection: AMG Zone 54 (AGD 66)
0
0.15
0.3
kilometers

SUG001 intersected a sequence of dark-grey-black sandstones and graphitic mudstones and siltstones, intruded by dikes of grey-green diorite hornblende diorite and hornblende porphyry, 0.55-26.85m thick (as intersected) and the hole was terminated in diorite. The diorites and hornblende porphyries are mostly weakly chlorite-epidote+/-carbonate+/-actinolite altered with trace to 3% disseminated and fracture-fill pyrite+/-pyrrhotite. A narrow dike of hornblende diorite at 234.7m is chlorite-epidote-actinolite-magnetite-feldspar altered. They are cut by rare, thin, quartz+/-calcite-base metal veins and veinlets up to 1cm thick.

The lowermost diorite from 307.75m is chlorite-epidote-magnetite altered with fine-grained disseminated magnetite, trace pyrite+/- pyrrhotite clots and weak pyrite+/- pyrrhotite fracturing with narrow sericite selvages. The sediments above it from 264.8m are variably bleached and strongly hornfelsed suggesting that this intrusive is thicker and may be a larger diorite intrusion. Elsewhere the sediments are mostly hornfelsed and unaltered with rare thin quartz-calcite-pyrite-pyrrhotite+/-shalerite+/-galena+/-chalcopyrite/covellite/chalcocite veins and veinlets up to 14cm thick. Hairline quartz-pyrite-pyrrhotite-veinlets are present from 220.35-250.9m.

SUG002 intersected a similar sequence of dark-grey-black sandstones and graphitic mudstones and siltstones, intruded by dikes of grey-green diorite, hornblende diorite and hornblende porphyry from 0.3-57.52 m thick (as drilled), and the hole was terminated in unaltered mudstone with pyrite-pyrrhotite fractures. The intrusives are less frequently altered compared with SUG001 and are only locally weakly-strongly chlorite-epidote+/-actinolite altered with 1-3% disseminated, patchy and fracture-fill pyrite+/-pyrrhotite. Hornblende in the dike at 214.3m is altered to biotite. They are cut by rare quartz-sulphide veins, quartz-pyrite-pyrrhotite veinlets, epidote-sulphide veinlets, sphalerite veins, gypsum-pyrite-pyrrhotite+/-sphalerite fractures and pyrite-pyrrhotite-sphalerite fractures. The sediments are mostly unaltered but hornfelsed and locally variably bleached from 191.1-232.8m. Epidote-pyrite-pyrrhotite-sphalerite clots are present from 230.9-232.8m. They contain 1-3% pyrite-pyrrhotite mainly on fractures, and rare quartz-pyrite, quartz+/-calcite-pyrite-pyrrhotite-+/-sphalerite+/-chalcopyrite+/-sphalerite, calcite-pyrite+/-pyrrhotite+/-galena+/-sphalerite and gypsum-pyrite-pyrrhotite-sphalerite veins and veinlets up to 2cm thick from 0-191.9m. Veining is absent from 206.15m.

Interpretation of Drill Results

Drilling at Suguma aimed to test a model for stacked quartz-precious-base metal veins and breccias dipping shallowly to the north and south and altered and mineralised intrusive dikes and sills in sandstones and graphitic siltstones and mudstones controlled by major WNW-ESE structures. Surface sampling had also shown that there was also potential for disseminated precious-base metal mineralisation in the sediments adjacent to the veins, and by inference adjacent to the intrusives.

Both holes intersected sequences of alternating sandstones and graphitic siltstones and mudstones intruded by multiple bodies of diorite, hornblende diorite and hornblende porphyry, as expected. However the dikes (and ?sills) are mostly only weakly altered and very poorly mineralised with thin and sparse quartz-pyrite-pyrrhotite+/-base metal sulphide veins and veinlets and pyrite-pyrrhotite+/-base metal sulphide-filled fractures. The sediments are often hornfelsed but only locally bleached except in SUG001 where they are strongly bleached from 264.8-307.75m in contact with weakly altered diorite at the bottom of the hole. They are similarly sparsely veined and fractured. However graphite is strong throughout the finer-grained sediments and present in the sandstones and would be a good reductant for gold precipitation and it is apparent that fluids have permeated them from the presence of sulphide-filled fractures and disseminated pyrite-pyrrhotite.

The extent of the diorite in SUG001 from 307.75m and the intensity of bleaching in the overlying sediments suggests that this is a larger intrusion and the hole may have intersected the Suguma Porphyry that outcrops immediately west of Suguma Creek.

SUG002 was collared near the southern side of the “Central Mineralised Zone” and intersected sparse mineralisation until 206.15m where the mineralisation stops and it appears that the hole passed though the northern side of the zone, as intended..

Conclusions from Exploration Work at Suguma

Previous exploration work discovered narrow, shallow-dipping, high-grade quartz-precious-base metal veins and breccias in graphitic sediments and altered and brecciated narrow diorite dikes and sills with similar veins in “mineralised zones” in Suguma Creek. Five drill holes by Equatorial Gold failed to adequately

test the “Central Mineralised Zone”; four holes failed to reach the zone and the fifth hole tested only a short section of it.

Sufficient work by OTML was able to identify a small area of potentially higher-grade mineralisation from soil sampling and rock chip sampling of the “Central Mineralised Zone” and two holes were drilled to test the depth and width extents of the zone, based on a model of near-vertical dikes and shallowly inclined sills and quartz-base metal veins controlled by WNW-ESE trending structures with potential for lower grade disseminated Au-Ag mineralisation in the sediments. Both holes intersected multiple narrow diorite intrusives but the extent of alteration, veining and mineralisation suggests that the mineralisation is uneconomic although assays are awaited. Mapping and soil geochemistry indicate that the mineralisation is poddy and discontinuous although this remains open to the east. It is not a target for OTML and no further work is recommended. SUG002 was located on the south side of the “Lower Horizon” to test the width and extent of its gold mineralisation and that of the "Upper Horizon' also. The hole intersected sparse mineralisation until end of hole at 206.15m. If the gold mineralisation has a steep northerly dip or plunge, then both holes would be ineffective. As drilled, there is a full 200m between the Upper Horizon outcrop and the possible downhole intersection location for sub vertical mineralisation (a very long way when testing high grade gold).

Both holes intersected sequences of alternating sandstones and graphitic siltstones and mudstones intruded by multiple bodies of diorite, hornblende diorite and hornblende porphyry. Dikes and sills are mostly only weakly altered and very poorly mineralised with thin and sparse veinlets and filled fractures.

The sediments are often hornfelsed but only locally bleached except in SUG001 where they are strongly bleached from 264.8-307.75m contacting weakly altered diorite at the bottom of the hole. Graphite is strong throughout the finer-grained sediments and is possibly linked to gold mineralisation.

Five narrow gold mineralised zones (+/-silver +/- zinc +/- arsenic) were cut by hole SUG002.

- A high-grade intercept of 27.0 g/t gold over 1.3m was demonstrated at the contact between the diorite and sediments.
- Four narrow zones of gold mineralisation were cut in hole SUG001, with a peak of 1.7m of 1.56 g/t.
- The targeted outcrop for SUG002 was 15m grading 24.7 g/t gold + 47g/t silver + 2.08% zinc (OTML assaying), however, the 27.0 g/t gold drill intercept contains 2,250ppm arsenic and insignificant silver and zinc, suggesting a different gold mineralising event.

The Suguma Prospect area has 3 remaining zones with high-grade gold from continuous chip outcrop channel samples and several additional areas of continuing interest.

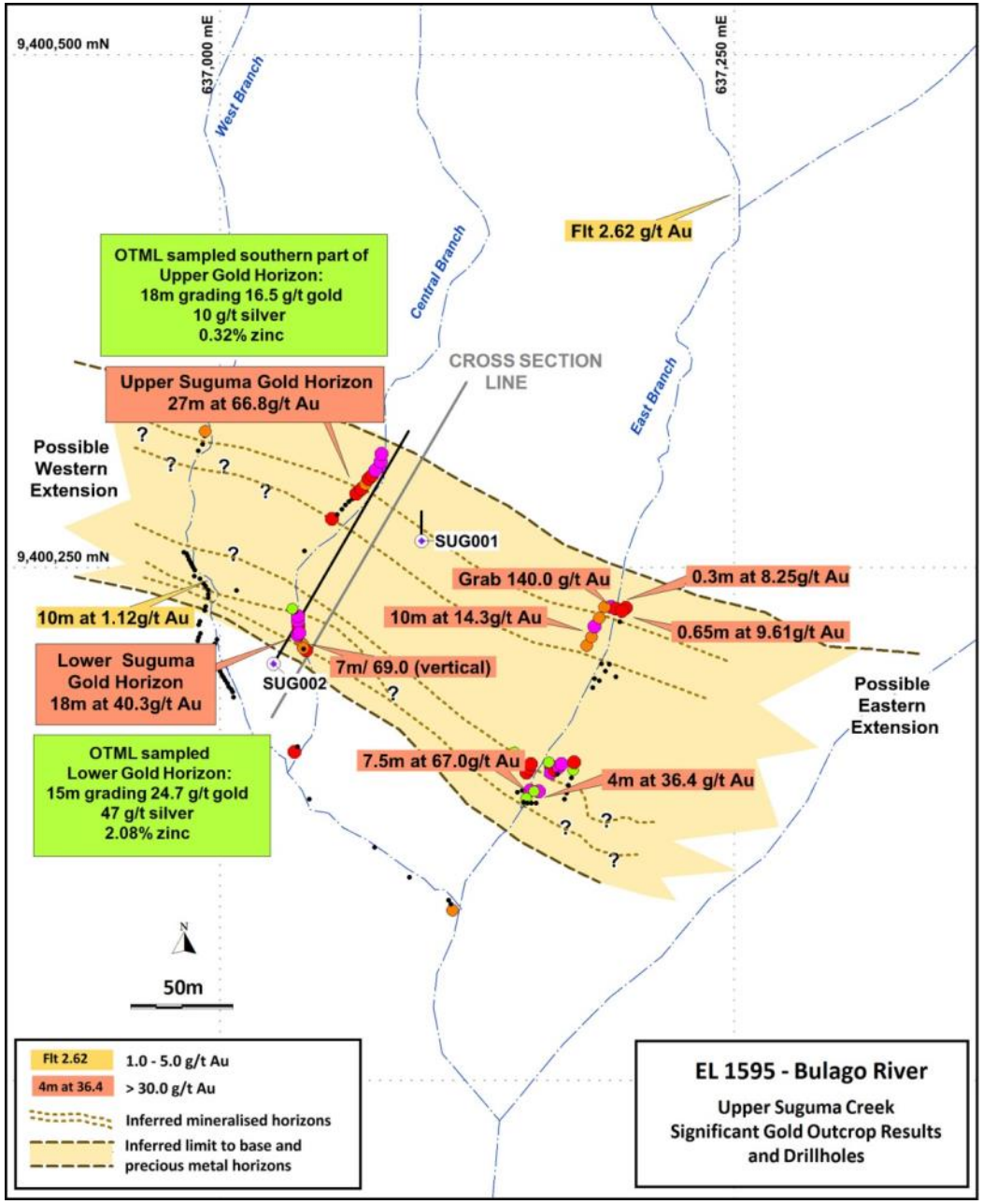
- The 3 zones are >130m to the east of the trace of SUG002 and include 4.0m of 135.6 g/t gold (with 6.0m of 21.1g/t gold along strike across East creek), 7.5m of 67.0 g/t gold (and 4.0m of 36.4 g/t gold along strike) and 10.0m of 14.3g/t gold.

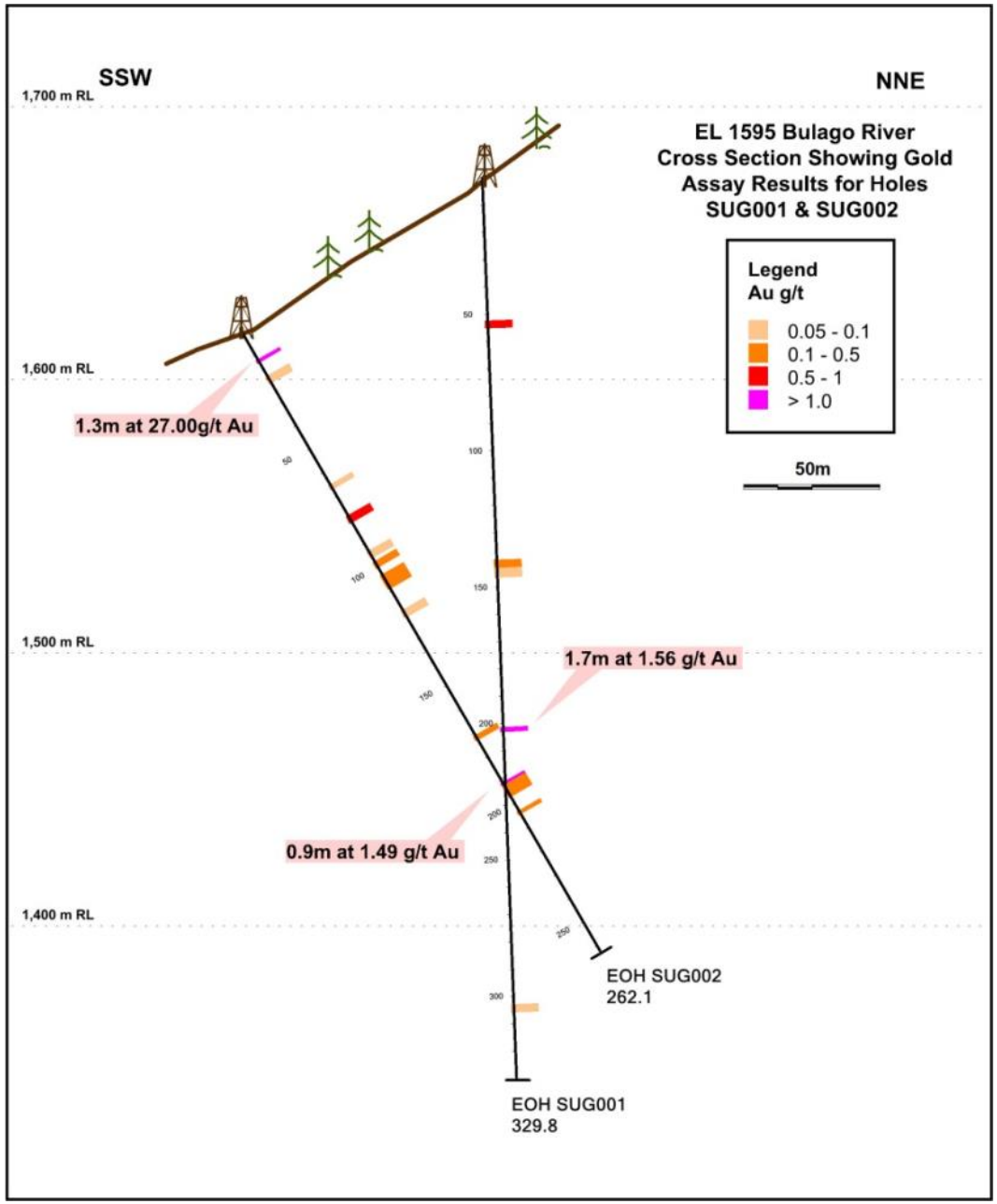
The seven holes drilled on the porphyry target demonstrated substantial intercepts of low grade gold+/- copper, but failed to locate substantial higher grade copper-gold mineralisation. However:

- Grid based geochemistry historically demonstrated at least 14 gold in soil anomalies, with 3 about 1,000m long and Suguma actually the least impressive of all of them.
- None of the gold in soil anomalies have been drill tested except Anomaly 1 ([~1,000m x 500m] and cut by BUL005 and the bottom of BUL006).
- The gold in soil anomaly in the NE is ~1,000m x 350m, it contains the peak gold in soil anomalism located on the grid, but remains to be tested by trenching and drilling.
- The strongest zone of copper in soil geochemistry trends NNW and is >1,200m x 125m. This anomaly also remain to be drilled.

Core from holes BUL007- 006 was cut in half onsite longitudinally by diamond bladed cut-off saw. Half core and SUG 002was sampled as appropriate relative to geology; they were flown to Tabubil for sample preparation and were assayed by Australian Analytical Laboratories in Townsville by fire assay (50g charge).

for gold and ICP for copper, molybdenum, silver, lead, zinc, arsenic and other elements. Suitable internal standards are used as appropriate OTML undertook systematic ridge and spur soil sampling to complement Frontier's historic grid based work. This work has provided excellent geochemical coverage and enhanced vectoring for future drilling.





.Appendix 2: SUMMARY OF REPORTS

Notes on Kennecott, Equatorial and Indo Pacific Exploration (Annual) Reports

- **CRA Exploration Pty Ltd – 1970 to 1971** PA 69 (P) to 71 reports 5,090 sq. km. Work concentrated on porphyry copper and stratiform base metal, lateritic nickel and bauxite. No gold analyses. Only significant mineralisation was noted in the upper Bulago River, being low grade porphyry copper associated with intermediate intrusives, but outcrop did not exceed 0.1% copper. No quartz veining was noted and alteration was weak.

Kennecott – Niugini Mining J/V - 1983 to 1984 PA 486

- Interest initially due to recognition of bi-modal gold in Strickland alluvials indicating Porgera + another source. The Bulago River was shown to contain coarse grained gold.
- Reconnaissance showed gold anomalies associated with intrusives and abundant gold in PC/SS. Suguma (Sugumbe) Prospect defined by silt = 0.6g/t gold.
- Follow up in 1984 consisted of detailed stream sediment/pan concentrate, float and outcrop and R/S soil sampling and geological mapping.
- An ~ 10 km sq gold in drainage anomaly was defined (± zinc, lead, arsenic, silver), centred on a NW-SE trending stock and associated multi-phase dyke swarm.
- Rock sampling in the upper Bulago (Funutu Creek) returned some very high grades (to 197 g/t gold and 363 g/t silver + 0.55% copper, 5.72% zinc, 5.5% lead), and also in a pyrrhotite skarn boulder in Funutu Creek, near the Bulago River.
- Two locations with stream anomalies in the south and west of the EL were not followed up (both should be assessed).
- Esso Minerals considered a JV and undertook R/S soil sampling that confirmed and extended the Kennecott – Niugini Mining J/V work.

Norfolk Investments Pty Ltd - 1986 - PA 642

- Work consisted of a stream sediment sampling program in the south and detailed mapping and sampling in the Bulago basin.
- The 2.55g/t PC + 2.59g/t SS anomaly was determined to be spurious, however, one arm was inconclusively sampled, and the other returned 9.2 micrograms (0.475g/t gold). The 86g/t pan-concentrate in Toeli Creek remains to be sampled.
- High grade float + one outcrop of 1.4m at 55g/t gold was noted at Suguma Prospect, with 34g/t silver, 1.29g/t zinc, 0.152% copper, 0.78.1% lead, 3.77% arsenic.
- Pitting was undertaken at Au/k-1 and results to 3.38g/t gold in iron stained diorite were noted. The base sample in the pits was an average of three times the associated soil assays.
- Additional gold anomalies (two) defined in soil to the west of Funutu Creek.
- A photo geological interpretation was completed. It indicates that the PA corresponds with a zone of strong faulting that trends WNW with some NW, within the core of a doubly plunging anticline.
- There was no evidence of over thrusting of the Darai limestone, as suggested by CRA.

Au K-1 Prospect

- Eleven pits were dug into anomaly Au K-1.
  - All the pits intersected weathered leucocratic hornblende diorite that was argillically to propylitically xx altered ± silicification. The rock is moderate to well fractured with iron and manganese, and remnant sulphides in silicified zones.
  - Pits were run for gold only.
  - The best pits in anomaly were 9699 (0.18, 3.38, 1.18) and 9788 (0.22, 0.23, 0.22, 0.78 g/t gold). Other completely mineralised pits were 9691, 9693, 9736, 9742, 9785, 9722 and perhaps 9791.

- The higher pit values, as per the soils, seem to be concentrated in the southern half of the anomaly.
- Soil anomalies 2-6 were noted as low gold values in pits.
- Soil anomaly 7 had results to 0.56g/t gold, but the highest pit was 0.362 in highly pyritic silicified diorite (pit 10420). Further work was recommended.
- Anomaly 8 was in talus, with low gold.
- Anomaly 9 – contact zone?, pits generally low, but peak value of 0.262g/t gold.
- Anomaly 10 – original soil, to 1.22g/t gold, with peak pit of 0.604g/t gold. **F**urther work was recommended.

- Breccias found on Sheet B (north) include fossiliferous limestone breccias with secondary calcite filling voids with 1.10g/t gold, 0.45% zinc, 5g/t silver and 260ppm arsenic.
- Sample 053A (float) is limestone breccia and located on an old Bulago River course to east of current, opposite the creek on north side, at the old Kennecott Camp site.

Suguma Prospect

- Tuffaceous mudstones are intruded by dykes of leucocratic hornblende diorite.
- Likely multiple horizons of high-grade gold were proposed because of varied high-grade styles of mineralogy/texture/rock types.
- Funutu sample 031 returned 73, 108, and 97 g/t gold, and was collected along strike of quartz veins striking 190º to 200º. NB: Equatorial/Norfolk – only ran gold in their soils.

Orolupe Prospect

- Initially Orolupe was defined by an outcrop of brecciated quartz, calcite, pyrite veining running 2.6g/t gold.
- Soils were planned, and some of limited effectiveness were completed with few decent grades.

Fornusu Prospect

- The best sample was float of a "massive" silica bearing sulphide boulder containing pyrite and sphalerite = 0.413g/t gold, 31g/t silver, 12.6% zinc, 1.17% copper, 0.126% lead and 160ppm arsenic.
- Further work recommended to evaluate silica limestone breccia, locate skarn and massive sulphide lithologies in outcrop.

Mineralisation Styles – see Goldner 1986 , 1987, both pages 26 and 27.

- Trace enargite was noted in the Suguma high-grade petrology samples.

Equatorial Gold 1987 - PA 642

- The Suguma and Au/k-1 Prospects were evaluated with rock chip sampling and trenching/pitting with encouraging results. Limited soil sampling was undertaken northwest of Funutu. In-fill geochemical stream sediment and outcrop float sampling was also undertaken in the Funutu, Orolupe (1st time), and Fornusu Creeks, plus the western 'regional' anomalies.
- There is a good geology summary on page 7 of 1987 Annual Report.
- It was not definitively confirmed that the 37g/t and 86g/t gold pan concentrates (no supporting silt) require no further follow-up. Another sample collected from the Bulago River in the central-west returned 0.419 pan concentrate and 0573 SS. This high silt suggests follow-up **is** required.
- Look for any remaining holes in existing stream sediment sampling and check the CRA stream sediment sampling in other parts of the EL,
- Equatorial maintain that the East Fornusu Creek is not anomalous, but the West Fornusu Creek is anomalous.
- Kapia Creek yielded anomalous pan concentrates, but no anomalous outcrops. A west flowing tributary in its headwaters remains to be evaluated.

Funutu Prospect

- The central and east branches of Funutu Creek were evaluated and are underlain by microdiorite and "fresh" andesite, with cream to white hornfelsed cherty meta-sediment.
- Rock sampling at Funutu didn't relocate the 1986 high-grade, but discovered 15cm of 34.4g/t gold (repeat 42.7g/t gold), 120g/t silver, 0.49% copper, 1.71% zinc, 0.86% lead in sericite altered out-cropping microdiorite.

Orolupe Prospect

- Orolupe Creek was traversed from the Tri Junction up-stream for 550m before being "impassable".
- The area was noted as fine grained hornblende diorite and leucocratic porphyry that is variably altered and pyritic with intensity apparently decreasing upstream. Epidote is the dominant alteration mineral and occurs on north-south fractures.
- 3 rocks (2 outcrop and 1 float) were collected with best result of 0.114g/t gold from pyritic leucocratic porphyry.

Upper Fornusu Creek

- The west branch is underlain by hornfelsed fine grained sediment intruded by 'tongues' of silicified porphyry (outcrop is limited).
- Pan concentrate and silt were confirmed as anomalous, with 1.29g/t gold and 0.111g/t gold respectively.

Previous Soil Sampling - Bulago Basin

- Evaluation showed multi-element anomalies are prospective, given the composition of the Suguma mineralisation.
- The Esso soil sampling was done on a 40m interval and it defined a much larger gold anomaly at Au K-1 than did the 25m Kennecott – Niugini Mining J/V sampling. The Esso anomaly corresponds well with both companies copper anomalies.
- Equatorial recommend follow-up of the multi-element soil anomalies in the SW of the soil sampled area (to SW of Funutu), and also in the north of the area (to the east of Suguma).
- Two lower priority areas (CuE-V1 and Au-E11 areas) were also noted.

Au K-8 Pitting

- Four additional pits were dug within and SW of Au K-8 (plan 3) to the west of Tri Junction Camp.
- Results included to 0.183g/t gold, 0.1g/t gold, and 0.116% copper.
- Three of the four pits contained gold > 0.1g/t.

Suguma Prospect

- The Pampalu to Kapia Creek area is noted as being to the west of the (mineralised) eastern Idawe Stock, but near the contact with the sediments.
  - Dykes are noted to be more abundant in the upper reaches of Suguma Creek, and lower Pampalu Creek.
  - A fault was postulated between Suguma and Kapia Creeks from an air-photo lineament.
  - The sediments in Suguma Creek are noted to be W to NW striking, dark to mid-grey, often carbonaceous mudstones interbedded with fine grained tuffaceous sandstone often containing felspathic fragments. Bedding dips consistently to the S and SE between 25º and 50º. They are well fractured and often silicified/hornfelsed in areas of extensive dyke development.
  - The dykes often appear to be parallel or sub-parallel to the bedding in the sediments.
  - The hornfelsed sediments have sericite and montmorilonite as alteration products.
- A number of strongly mineralised sulphide rich horizons are developed in the hornfelsed zones often with high gold grades.

- Petrographic and electron microprobe work shows the copper, zinc and iron sulphides represent an early stage of mineralisation and the gold, arsenic and lead mineralisation is a later stage.
- Gold occurs in its native form and also within arsenopyrite.
- On a microscopic scale at least, the mineralisation has similarities to the Porgera Deposit.

- Equatorial noted that their rock sampling was generally "traverse" chip, not "composite" chip sampling and should be regarded with some caution.
  - Upper Suguma Creek yielded numerous float and outcrop samples with gold > 1g/t gold, to a peak of 15m grading 57.4g/t gold and also 6m grading 72.2g/t gold (both containing high lead, zinc and arsenic). The sample interval used on these was subsequently decreased.
  - Float sample 1211 graded 39.9g/t gold, and was a distinctly banded massive sulphide containing significantly higher lead and zinc assays than other samples, and has not apparently been located in outcrop. It could be from the 6m zone of 72.2g/t gold or from an undiscovered outcrop.
  - A trench was dug above the 1.4m grading 55g/t gold to the west of the outcrops and the best result was 1m grading 3.33g/t gold. This interval may not represent the strike continuity of the 1.4m outcrop as it is distinctly lower in base metals and arsenic.
  - The main area of gold mineralisation occurs within an 80 to 100m wide WNW striking and 220 long zone, as defined in 3 adjacent branches of Upper Suguma Creek. Multiple mineralised horizons are apparent and more could be present give the limited outcrop.
- Additional mineralisation is likely in the headwaters of Eastern Suguma Creek as noted by a float of pyritic cherty mudstone grading 2.62g/t gold. Follow up was recommended.
- Kapia Creek returned a highest rock (float) of 0.516g/t gold from a pyritic vein quartz sample. The Kennecott – Niugini Mining J/V however, obtained a highly anomalous (5.9g/t gold) pan concentrate from a west flowing tributary in the upper reaches of Kapia Creek and this was reconfirmed. This drainage/tributary still requires additional follow-up.

Au K-1 Pitting

- 15 additional pits were dug in the Au K-1 anomaly and were vertical channel sampled.
  - Six pits returned a value > 0.5g/t gold, and two pits returned >1.0g/t gold.
  - The pit (9699) that returned 3.38g/t gold and 1.18g/t gold in 1986 was re-sampled using slightly different intervals, and the grades were similar (maximum assay of 2.25g/t gold (2.6g/t gold in the re-assay).
  - The highest copper was 900ppm from pit E-I located SE of Au-K1. It is generally V low – does indicate leaching?
  - The highest gold grade in each pit is generally correlated with higher iron oxide concentration that appear to be remobilised.
  - The hand pitting did **not** intersect fresh rock, and may **not** reflect primary grades.
- Drilling 2 holes was recommended in conjunction with the Suguma Project.
- Work to date has identified a porphyry style mineralisation with interesting, but sub-economic gold grades.
- Follow-up was also recommended for overlapping soil anomalies, creeks with high gold grades in pan concentrated/silt in the Upper Bulago tributaries, and the large Suguma drainage to the west of Suguma Creek.

Equatorial Gold - 1988 - PA 642

- Work in 1988 consisted of additional sampling of outcrops at Suguma, and the drilling of 5 core holes for a total of 830m, plus continued evaluation of the large stream gold anomalies.

- Four mineralised zones were recognised at Suguma Upper Zone (exposed over an open-ended 85m strike length), East Suguma, Central Suguma Lower Zone and Suguma Slide Zone.
- It was noted that the "Suguma" Stock could be the eastern expression of the "Western" Idawe Stock, which would mean that the assertion the "Western" Stock is un-mineralised valued is **incorrect.**
  - This opens a large area for re-evaluation.
  - Alteration of the "Eastern" Stock is dominantly propylitic with minor argillic, with silicification almost absent.
  - Pervasive carbonate alteration was noted in the drill core.
- Mineralisation in the intrusives occurs as disseminations and fracture coatings, mostly pyrrhotite, pyrite. Variable quantities of base metal sulphides (sphalerite, galena and chalcopyrite), and arsenic occur in the more strongly gold mineralised zones.

Follow up of Stream Anomalies

- The high pan concentrates in Suguma Creek were followed up and confirmed, with 3 float samples collected in total with grades of 16.0g/t gold, 8.50g/t gold and 1.56g/t gold (pyritic breccias and sediments).
- Re-sampling of Emboro Creek south of the Bulago basin returned interesting pan concentrates including 13g/t gold, 3.87g/t gold and 3.73g/t gold, plus 5.90g/t gold with a complimentary silt sample of 0.141g/t gold. The drainage is ~ 2 sq km in size.
- Extremely high pan concentrates were obtained from Jabaru and Mukabalu Creeks, with small nuggets panned and results to > 13,000ug gold. These creeks are only ~ 1.5km long so this is very encouraging.
- A statistical analysis of the stream sediment sample assays was undertaken and anomalous zones were defined. Thresholds were 62ppm copper, 56ppm lead, and 120ppm zinc.
  - The main copper anomaly is an irregular NW oriented zone that encompasses the middle section of the Bulago Basin plus the Suguma to Gunabu Creek areas, It is 4km long and averages 1.5km wide.
  - The higher tenor core to the copper anomaly trends NNW, includes the Au K-1 Prospect and, to the west of Fornusu Creek.
  - Lead is an important indicator/pathfinder, and one major zone was noted to the west of Funutu covering Jabaru and Mukabalu Creeks. Small lead anomalies also occur at Suguma and Orolupe.
  - Zinc is also a useful path-finder and it covers an area similar to the overall gold in stream anomaly.
  - A strongly anomalous zone of zinc is coincident with the lead at Jabaru, and the largest, strongly anomalous zone occurs in the region of the Orolupe Prospect and to the south to the Bulago River.
  - A zinc anomaly occurs to the south and east of the Suguma Prospect.
  - Lead and stronger zinc anomalies are generally peripheral to the overall copper anomaly and **all** are peripheral to the stronger central copper anomaly.

Soil Sampling

- 3 lines were completed west of Kapia Creek at Pasawilli and to the west of Jabaru Creek.
  - The peak assay at Kapia was 0.16g/t gold at the south end of the line, with all other gold results below detection, but several did contain elevated copper, lead and zinc.
  - No significant results were obtained from Pasawilli
  - A high Esso soil 1.13g/t gold was confirmed west of Jabaru Creek by Equatorial, with one assay of 0.86g/t gold in 1987, but was not repeated by the 1988 re-sampling It appears to be real.

Rock Sampling

- The Funutu Prospect was not further evaluated during 1988.
- Follow-up was recommended on the "skarn" float in Funutu Creek, where a 10g/t gold float was previously noted.
- Limited sampling in Emboro and Pasawilli Creeks failed to return any significant mineralisation.
- It was noted that the "low proportion of significantly mineralised float and outcrop samples does not explain the widespread, high gold in pan concentrate results, in particular Jabaru and Mukabalu Creeks.

Suguma Prospect

- A description of the lithologies at Suguma is located on pages 19-21 of the 1988 report.
- Normal faulting was recognised in 4 major trends:
  - 290-310, with a SW dip at 60º to 80º.
  - N-S, with a W dip at 30º to 40º.
  - 060, with a vertical orientation and
  - E-W, with a south dip at 25º to 45º.
  - Displacements noted were small at 3 to 4m.
  - Central Suguma Creek was noted to have significant occurrences of "dip slope faults" with slickensides to 180º, consistent with uplift.
- There is a positive correlation between gold and arsenic, and lesser correlation with zinc and lead in rocks. Silver is also highly variable.
- Mineragraphic work suggests there are two phases of gold mineralisation being:
  - An earlier phase dominated by coarse grained pyrrhotite, pyrite sphalerite and chalcopyrite.
  - A later phase of delicate encrustations of pyrite and marcasite.
  - Sulphides occur in quartz.
  - Arsenical pyrite was noted with visible gold
- **East Suguma Zone**
  - Mineralisation is located in a moderate to steady dipping fault zone trending ~ 300º, and dipping 50º to 60º to the SW.
  - Sampling returned 1.4m grading 55 g/t gold, 34 g/t silver on the west side of the creek.
  - Two zones on the east side of the creek returned 11.5g/t gold, 27g/t silver, over a true width of 1.3m respectively.
- Central Suguma Zone (see plan 7)
  - Very high gold grades were noted on 2 exposures of mineralised fault planes that were not representative of true widths (sampled 'along' strike).
  - The eastern most line returned 58.3g/t gold over 30m.
  - It is likely there are multiple narrow mineralised horizons.
  - Fault planes dip between 32º and 72º to the SE.
  - Available outcrop suggests the individual horizons are <0.5m wide.
  - The mineralised zone appears to have 4 sub-parallel NW-SE trending zones over an exposed strike length of ~ 85m.
  - Highest grades on the eastern most line from the N to S were:
    - 2m grading 157.5g/t gold

- 4m grading 130.45g/t gold
- 8m grading 101.03g/t gold
- 6m grading 31.85g/t gold
- 2m grading 188g/t gold (this must be included above somewhere)!

- Mineralisation is dominantly hosted by leucocratic diorite but also extends into adjacent carbonaceous mudstones.
- The NW extension to the zone is dominantly within sediments.
- Equatorial interpret the intrusive to be sub-horizontal based only in its location in vertical holes.
- They also interpret the alternating patterns of intrusive and sediment in the Eastern Creek to be due to normal faulting. This seems highly unlikely.
- They also maintain most intrusives are sills, sub-parallel to the flat lying bedding.

- **Lower Suguma Zone (see Plan 8)**
  - Noted as being complex and perhaps represents the intersection of two separate mineralised horizons, being dip slope and sub-horizontal shear.
  - Is this the 15m of 57g/t zone? – I believe so.
  - Mineralisation occurs on the NW bank of Central Suguma Creek and dips 30º to 55º to the SW.
  - Sampling was again along/across strike and was unrepresentative.
  - Samples collected included up to 42.2 g/t gold, 78 g/t silver, with 1987 assays including up to 84 g/t gold and 28 g/t silver.

- **Suguma Slide Zone**
  - Mineralisation is located in a 10cm – 15cm true thickness horizontal massive vein within bedded arenite.
  - Float from slump debris returned up to 10.31 zinc, with 0.11 copper, 62g/t silver and 3.62g/t gold, believed derived from the flat lying vein.
  - Three chip samples returned between 23.0g/t gold, 41g/t silver and 37.4g/t gold + 53g/t silver, with assays up to 4.78% zinc and 2.16% arsenic.
  - Equatorial suggest it can be traced for 50m to the west.

- **Diamond Drilling**
  - 5 holes were drilled for a total of 829.95m, mostly in PQ core.
    - Hole 1 was drilled 028º M/-45º to 247.9m
    - Hole 2 was drilled 028º M/-45º to 146.3m
    - Hole 3 was drilled 036º M/-45º to 226.9m
    - Hole 4 was drilled 043º M/-75º to 81.25m
    - Hole 5 was vertical to 128.1m
  - Detailed descriptions of rational and results are included in the report on pages 29-38.
  - Sills are interpreted and this is confirmed at least in hole 5 with sub-horizontal contacts with the sediments (80º to LCA). However, joint patterns and veins tend to have an orientation of ~ 30º to LCA
  - Equatorial noted “the large Suguma Stock, SW of the drill line, has a sulphide rich alteration halo up to 50m wide. This area, in particular, the projected extension of the Upper Central mineralised zone (Plan 7), represents an excellent target for future exploration”.

- The highest assay in all the drilling was 1.0g/t gold and 0.225% zinc over 0.6m at the bottom of DDH S4, and was continued in veining hosted by leucocratic hornblende diorite interpreted to dip 45º S parallel to the Upper and Lower Suguma fault planes xx.
- Equatorial note on Page 37. "In the East Suguma Creek area, south dipping fault controlled mineralisation returning 55g/t gold over 1.4 metres, has been traced up-dip, by trenching to bedrock, for eighty metres up the east bank of the creek. Over this distance the fault changes character from a mylonite (55g/t gold) to a breccia (33.3g/t gold) to a slickensided fault plane (11.5g/t gold, including hand specimens to 142.0g/t gold), and continues as the faulted contact of carbonaceous mudstones and leucocratic hornblende diorite with a best gold value of 1.81g/t gold. Effectively the fault bifurcates up-dip and shows a general decrease in grade".
- It was concluded that the drilling "failed to locate extensions of, or satisfactorily explain the high grade zones found in outcrop… it is now apparent that the gold mineralisation is secondary to the lithologies and is structurally explained".

- **Recommendations**
  - Further detailed exploration of the anomalous drainages is clearly justified as the area, as a whole, is considered to have excellent potential for the discovery of economic gold mineralisation.
  - It was noted: "there is excellent potential for the Central Suguma Upper Zone to continue along strike below the talus covered ridge crests. Considerable surface exploration of this zone is warranted.
  - A structural geologist should determine the controls on mineralisation to assist in locating zones of more extensive structural preparation.
  - Trenching is required at Au K-1, plus detailed composite chip sampling of creek exposures below the anomaly.

Norfolk Investments Pty Ltd – 1990 - PA 642/1

- No field work was undertaken since 1988
- The possibility was suggested of a NW trending structure passing through Upper Funutu Creek to Au K-11, K-10, K-5 and K-6, with a possible strike length of 3km.
- A work program was suggested that concentrated on hand auguring to saprolite at Au K-1, additional soil lines in the Funutu to Au K-11, K-10, K-12, K-8 zones, traversing and rock sampling in un-sampled areas, trenching at Funutu and auger holes at Au K-7.
- No further exploration was undertaken by Norfolk/Equatorial Gold.

Indo Pacific Mining (PNG) Pty Ltd – 1997 - EL 1084

- Exploration consisted of one field trip comprising follow-up mapping and sampling in the headwaters of the Bulago River.
- 33 panned concentrate samples were collected throughout a 24km² area, but only 2 were analysed along with 2 silt samples from Suguma Creek. 12 float rocks were also analysed from Suguma Creek.
- A total of 153 float, grab and channel samples were collected and analysed.
- Best results included:
  - Suguma - 2m of 12.1g/t gold, 16g/t silver and 1.70% zinc
    grab of 2.02 g/t gold, 24g/t silver and 2.67% zinc
    grab of 2.95g/t gold, 114g/t silver and 1.96% zinc
    grab of 2.95g/t gold, 114g/t silver and 1.96% zinc
  - Funutu - grab of 0.275g/t gold, 21g/t silver and 0.476% copper
    grab of 0.44g/t gold, 2g/t silver and 0.12% copper

grab of 0.51g/t gold

grab of 0.216g/t gold and 0.14% copper

- Fornusu - 1m of 0.409g/t gold, 21g/t silver and >1% copper

  6m of 0.299% copper

  6m of 0.196% copper

  grab of 0.524g/t gold, 7g/t silver and 0.206% copper

  grab of 0.37g/t gold, 5g/t silver and 0.248% copper

  grab of 0.09g/t gold, 3g/t silver and >1% copper

  grab of 0.436g/t gold, 20 g/t silver and 0.929% copper

  NB Equatorial collected a 10g/t gold float

- Orolupe - 2m of 3.78g/t gold, 6g/t silver and 0.141% copper
  2m of 1.35g/t gold, 24g/t silver, >1% zinc and 0.5% lead
  2m of 0.662g/t gold and >1% zinc
  float of 0.864g/t gold and 12g/t silver
  grab of 0.323g/t gold, 5g/t silver and 0.54% zinc
  2m of 0.263g/t gold, 6g/t silver and 0.141% copper
  grab of 0.766g/t gold, 9g/t silver and 0.21% copper
  grab of 0.524g/t gold, 51g/t silver, 0.75% copper and>1% zinc
  1m of 0.347g/t gold, 2g/t silver and 0.60% zinc

- Ima- 2m of 12.5g/t gold, 24g/t silver, 0.66% zinc and 0.37% arsenic
  grab of 26.3g/t gold, 30g/t silver, 1.88% zinc, 0.92% copper & 0.13% arsenic
  0.5m of 8.9g/t gold, 132g/t silver and 1.1% arsenic
  1m of 0.563g/t gold, 57g/t silver and 0.12% copper
  grab of 0.923g/t gold, 22g/t silver and 0.69% lead

- Belalo -(Au/k-1)
  2m of 0.18g/t gold, 65g/t silver and 0.46% copper
  2m of 0.186g/t gold
  float of 0.23g/t gold and 0.13% copper

- Onuma - grab of 0.107g/t gold, 0.155% copper, <50 arsenic, and <1 silver
  grab of 0.122g/t gold, 0.18% copper (everything else very low)
  grabs of 0.25g/t gold and 0.209g/t gold

Ledger of samples collected at Bulago

CRA	-	SS	=	
(?)	-	PC	=	
	-	Soil	=	
	-	Rock	=	
Kennecott (1984)	-	SS	=	179
(20 days + ? =?) -		PC	=	183
	-	Soil	=	625
	-	Rock	=	137
				1,124
Esso - Soils (approx. ?)	=	?		
Equatorial (1986)	-	SS	=	7

(?)	-	PC	=	8
	-	Soil	=	265
	-	Rock	=	86
	-	Pit	=	103
				469
Equatorial (1987)	-	SS	=	20
(28 days)	-	PC	=	23
	-	Soil	=	9
	-	Rock	=	155
	-	Pit	=	60
				267
Equatorial (1988)	-	SS	=	91
(~ 3 months)	-	PC	=	87
	-	Soil	=	68
	-	Rock	=	500
	-	Core	=	305
				1,051
Indo Pacific (1987)	-	SS	=	2
(?)	-	PC	=	2
	-	Soil	=	0
	-	Rock	=	153
				157
Frontier Resources	-	SS	=	0
2009 -		PC	=	0
	-	Soil	=	1,672
	-	Rock	=	349
	-	Trench	=	164

Prior to Frontier and not including Esso or CRA, there have been 3,068 samples collected at Bulago East and West Idawe Stocks.

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The following information is provided to comply with the JORC Code (2012) requirements for the reporting of the previous exploration and drilling results on Exploration Licence 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 hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.	Drillhole and virtually all other samples type locations were surveyed utilising a handheld GPS, with reference to topographic maps etc. Logging of drill, outcrop and grab rock samples normally included mineralisation, lithology, weathering, alteration, structure, texture (RQD-drilling only). 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. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1m 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.	Core from the Bulago drill holes was cut in half onsite longitudinally by diamond bladed cut-off saw. Half core was sampled as appropriate relative to geology and flown to Tabubil for sample preparation and analysis by Australian Analytical Laboratories in Townsville by fire assay (50g charge) for gold and ICP for copper, molybdenum, silver, lead, zinc, arsenic and 38 other elements. Samples were collected in calico bags for despatch to the sample laboratory. Sample preparation was in 3-5kg pulverising mills, followed by sample splitting to a 250g pulp which was then analysed by Inductively Coupled Plasma Optical (Atomic) Emission Spectrometry Multi-acid digest including Hydrofluoric, Nitric, Perchloric and Hydrochloric acids in Teflon Tubes.
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).	Diamond core drilling technique was PQ (122.6mm hole and 83.1mm core) , HQ (96.1mm hole and 61.1mm core) and NQ (75.7mm hole and 45.1mm core) sized triple tube diamond core, downsizing as drilling conditions required.
Drill sample recovery	o	Method of recording and assessing core and chip sample recoveries and results assessed	Drill core recoveries were estimated from physical measurement of the reoriented core samples recovered relative to downhole core marker blocks. Sample recoveries were very good in general and virtually 100% in fresh rock .
	o	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Triple tube diamond drilling and down hole drilling consumables were utilised to maximise core recoveries from fractured /material with different density /competency contrasts etc.
	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.	There is no observable relationship between recovery and grade and therefore it is reasonable to assume there is no sample bias.
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.	Detailed geological logs have been completed on all diamond core drill holes and basic geotechnical data has been recorded . The geological data would be suitable for inclusion in a Mineral Resource estimate.
	o	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Logging of core recorded lithology, mineralogy, mineralisation, weathering, colour and other features. Core was stored in core trays onsite.
	o	The total length and percentage of the relevant intersections logged	All holes were logged in full.
Sub-sampling techniques and sample preparation	o	If core, whether cut or sawn and whether quarter, half or all core taken.	Core - cut longitudinally in half by a diamond bladed cutoff saw.
	o	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	Not applicable
	o	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Appropriate
	o	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Appropriate - The sample preparation in the field and laboratory followed industry best practice -Refer point below
	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.	Appropriate - The core was cut in half longitudinally (by a diamond bladed cut-off saw) in an orientation approximately perpendicular to all relevant mineralsiation, structural features etc
	o	Whether sample sizes are appropriate to the grain size of the material being sampled.	Appropriate - The sample sizes are considered more than adequate to ensure that there are no particle size effects relating to the grain size of the mineralisation.
Quality of assay data and laboratory tests	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 have been established with field QC procedures involving the use of standards (insertion rate approx. 1:20) and duplicate samples (insertion rate approximately 1:50) for drilling and specific trenching programs.

	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.	Not applicable
Verification of sampling and assaying	o	The verification of significant intersections by either independent or alternative company personnel.	OTML's senior personnel visually inspected and verified the significant drill intersections. In addition, all core been photographed to record sample recovery and quality data.
	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 using a standard set of Excel templates in the field that are then loaded into the database.
	o	Discuss any adjustments to assay data.	No adjustments or calibrations have been made to any assay data.
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 has been used to determine collar locations at this stage.
	o	Specification of the grid system used.	Map datum is AGD 066
Data spacing and distribution	o	Data spacing for reporting of Exploration Results.	Refer to the attached plans for 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 data spacing and distribution is insufficient to establish the degree of geological and grade continuity 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.
	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 buy Company personnel until they are despatched to the laboratory. There are no issues with sample security.
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 1595 - Bulago is located in Papua New Guinea's Southern Highlands Province. 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 environmental issues associated with the EL. 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 good relationships with 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 1980's, with little work since 1987 and prior to FNT.
Geology	o	Deposit type, geological setting and style of mineralisation.	High grade intrusive -epithermal related gold and porphyry copper-gold 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:	Refer to drill information and results Table.
		Easting and northing of the drill hole collar	Refer to drill information and results Table.
		Elevation or RL (Reduced Level- elevation above sea level in metres) of the drill hole collar	Refer to drill information and results Table.
		Dip and azimuth of the hole	Refer to drill information and results Table.
		Down hole length and interception depth	Refer to drill information and results Table.
		Hole length	Refer to drill information and results Table.
	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.	All required information has been included.
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.	Table of results included to show data aggregation in trench/channel samples etc. Drill results are standard length * grade weighted averages. All reported analysis intervals have been length weighted to 1 metre. No top cuts have been applied. Lower cut-offs are stated.

		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	Is 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	It 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').	The downhole lengths of mineralisation have been reported because the geometry of the mineralisation with respect to the drill hole angle and azimuth is not well understood.
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 are included.
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 undertaken and included.
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.
Further work	o	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Appropriate plans are included, as possible.

Frontier Resources Ltd Exploration Licence Information

	Licence No.	Date From	Date To	Ownership	'Reduced' Area (SQ KM)	Latitudinal Sub Blocks	Current Area (SQ KM)	Latitudinal Sub Blocks
Bulago River	EL 1595	7/07/2012	6/7/2014	100% Frontier Gold PNG Ltd	100	30	140	42
Mt Andewa	EL 1345	13/08/2012	12/8/2014	100% Frontier Copper PNG Ltd	100	30	117	35
Mt Likuruanga	EL 1351	13/08/2012	12/8/2014	100% Frontier Copper PNG Ltd	100	30	123	37
East New Britain	EL 1592	21/03/2013	20/3/2015	100% Frontier Copper PNG Ltd	100	30	493	148
Central New Britain	EL 1598	21/03/2013	20/3/2015	100% Frontier Copper PNG Ltd	100	30	347	104
Leonard Schultz	EL 1597	13/02/2013	12/2/2015	10% Deferred Carried to BFS Frontier Gold PNG Ltd - FrontRunner Exploration Ltd JV	To be relinquished	47	590	177
Mt Schrader	EL 1951	13/03/2012	12/3/2014	100% Frontier Copper PNG Ltd	Not renewed		2,477	743
Sudest Island	EL 1594	13/03/2012	12/3/2014	100% Frontier Gold PNG Ltd	Not renewed		267	80
Whiteman Range	EL 2047	28/09/2012	27/09/2014	100% Frontier Copper PNG Ltd	Relinquished		2,500	750
Gasmata	EL 2057	28/09/2012	27/09/2014	100% Frontier Copper PNG Ltd	Relinquished		280	84
Cethana	EL 29/2009	13/09/2010	12/09/2015	10% Free Carried to BFS Frontier -Torque Mining Ltd JV	109		109	NA
River Lea	EL 42/2010	3/04/2011	2/04/2016	10% Free Carried to BFS Frontier -Torque Mining Ltd JV	9		9	NA
Narrawa Creek	RL 3/2005	12/05/2006	12/05/2014	10% Free Carried to BFS Frontier -Torque Mining Ltd JV	2.8		2.8	NA
Stormont Mine	ML 1/2013	3/11/2013	13/08/2018	5% Nett Profits Interest Frontier -Torque/BCD Mining Ltd JV	0.13		0.13	NA
Total Reduced PNG Area =				**500 SQ KM**	**621**	**SQ KM**	**7,454**	**SQ KM**

NB: 1. The Papua New Guinea Mining Act of 1992 stipluates that ELs are granted for renewable 2 year Terms (subject to Work and Financial Commitments)
2. The PNG Government maintains the right to purchase up to 30% project equity at "Sunk Cost" if/when a Mining Lease is granted.
3. BFS = Completion of a positive and hence "Bankable" Feasibility Study into the viability of any proposed mining operation