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Announcement

28th February 2011

## **Bulago Geophysical, Geochemical, Corporate and Proposed Exploration Update**

- Aeromagnetics demonstrate an 8.0 x 4.5km NW-SE trending zone with multiple targets
- Soil assays delineate extensive zones of gold and copper mineralisation
- Ok Tedi Mining Ltd moves to 'Advanced Exploration'
- 5,000m drilling program to commence mid to late April

Frontier Resources Ltd is very pleased to announce results from aeromagnetic geophysical and soil geochemical surveys and Joint Venture proposed future exploration relating to the Bulago Joint Venture (EL 1595), in the Southern Highlands Province of Papua New Guinea (Figures 1 -4).

**A large and detailed aeromagnetic and radiometric geophysical survey was completed by Ok Tedi Mining Ltd (OTML) at the Bulago JV in early 2011 and a number of 'Low Latitude Total Magnetic Intensity Anomalies' (probable intrusives) were demonstrated in the Bulago aeromagnetic data.**

- The main cluster of complex magnetic features occur in a NW-SE trending zone that is around 8,000m long and 4,500m wide (Figures 5, 6 and 7).
- The geophysical data is being interpreted and will be integrated with the existing geological and geochemical information to discriminate and rank targets for follow up exploration, including drilling.

**Multiple, areally extensive and strong copper and gold anomalous soil zones have been demonstrated in grid based soil sampling (Figures 8 and 9).**

- 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 total anomaly is around 4,000m long (NW-SE) at >150ppm copper.
- Historic trench channel assays in 2 discrete horizons at Suguma included 27m of 66.8 g/t gold and 18m of 40.3 g/t gold. The soil geochemistry shows Suguma only as a strong point anomaly, indicating that every cohesive and/or moderate to strong gold anomaly could be highly significant.

**Joint Venture partner OTML have indicated they intend to move to 'Advanced Stage Exploration' on the Bulago EL and a 5,000m drilling program with 2 rigs from about mid-April.**

- Holes are planned to average 350m depth, with some to 500m, however, they will drill to 700m maximum downhole depth if warranted.
- Five camps have been established at Bulago as bases from which to conduct exploration.
- A 600m trench has been completed in the eastern copper anomaly (where drilling is proposed from pads 2, 4 & 6) and with samples taken despatched to the laboratory for analysis.
- OTML's geological data collection, detailed aeromagnetic /radiometric data modelling and interpretation of the area is continuing.
- JV terms require OTML to expend US\$12 million over 6 years (from May 2010) to earn 58% of EL 1595, then carry Frontier to completion of a Bankable Feasibility Study, with pro-rata (carried) repayments from 50% of future FNT metal sales. Under certain circumstances, OTML and the PNG National Government can purchase up to 80.1% equity in the project.

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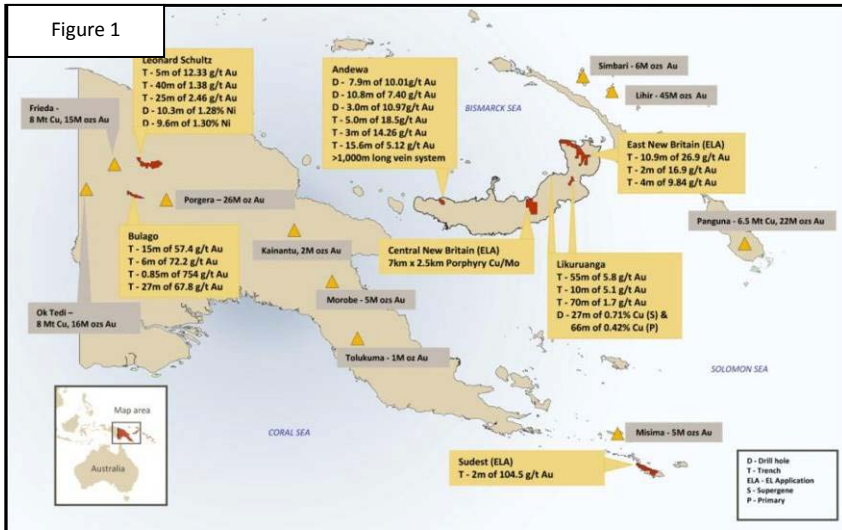


Figure 1. Location of Frontier's exploration licenses and applications in Papua New Guinea (except the new Mt Schrader ELA).

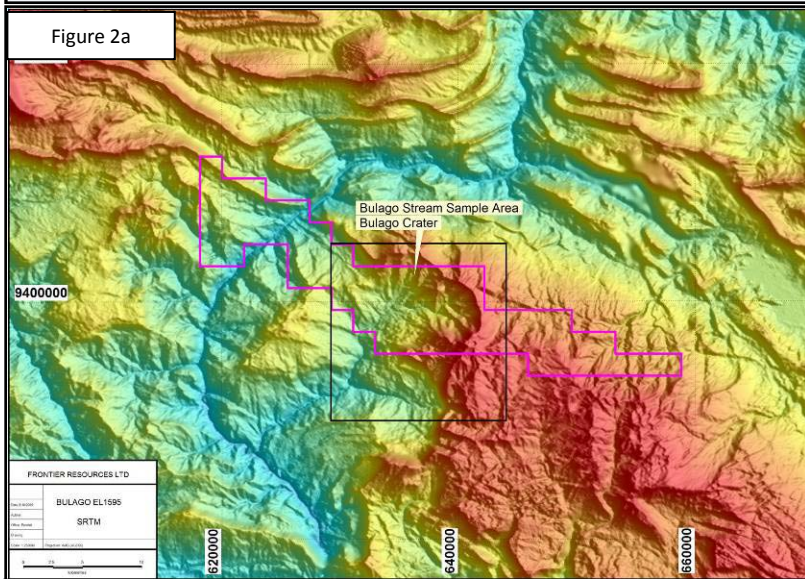


Figure 2a. An SRTM topographic image of EL 1595 - Bulago in the Southern Highlands Province, showing the strongly anomalous and sub-circular Bulago basin on the central eastern side of the three prominent circular features/ intrusions.

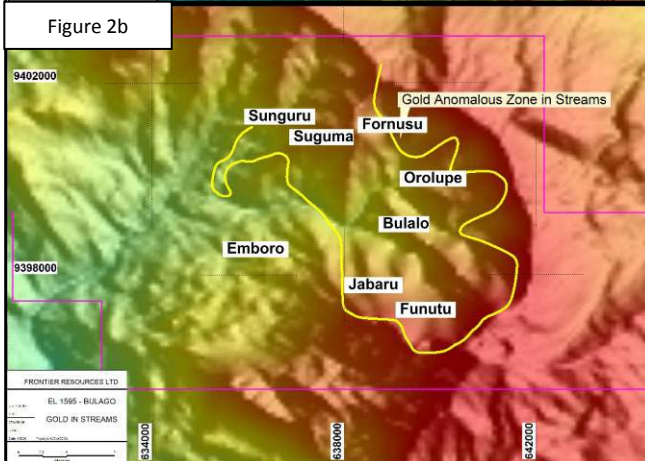


Figure 2b. Closer up SRTM topographic image of the Bulago basin showing general prospect locations.



Figure 2c. Google Earth image of the Bulago basin for evaluation of topography / structures and comparison with figures 2a and 2b.

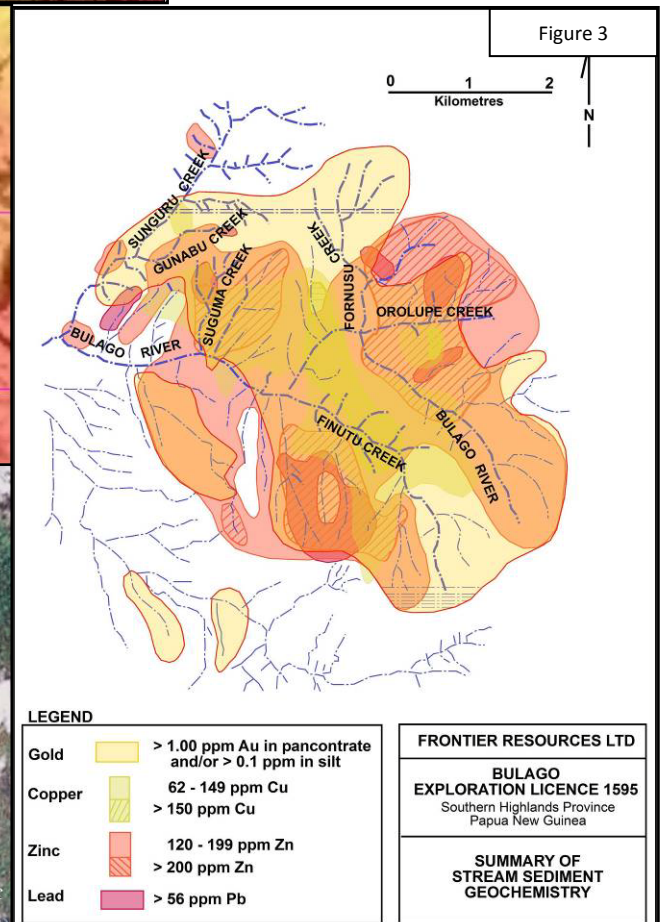


Figure 3. Summary of stream sediment geochemistry showing the Bulago basin drainage anomalies for copper, gold, lead and zinc. Note the consistent distributions and zonation of different metals.

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### Aeromagnetic Survey Details

The Survey covers the central sector of EL 1595 at an exceptionally good mean terrain clearance of 37m, on 50m traverse spacing, with 500m spaced tie lines, for approximately 3,190 line kilometres total.

Images of aeromagnetic Total Magnetic Intensity (TMI), First vertical derivative TMI and the digital elevation model are included as figures 5, 6 and 7.

The line profile data was gridded to 12.5m resolution and the magnetic data is of good quality with no inconsistencies. At the low magnetic latitude of this survey (and PNG in general), the shape of magnetic anomalies is more complicated than in an area of steep magnetic inclination (closer to the earth's poles).

At low magnetic latitudes (near the equator), the magnetic inclination is low and the intensity of magnetisation is relatively weak. These factors combine to reduce the Total Magnetic Intensity (TMI) anomaly magnitude, and at Bulago the largest anomalies have a peak to peak amplitude of around 2000nT.

### Low Latitude TMI anomalies are generally characterised by a

**magnetic low over the centre of the body flanked by magnetic highs at the northern and southern ends. A number of this type are present in the Bulago data, with a main cluster of complex magnetic features lying in a 4.5km wide zone trending NW-SE and about 8km in length.**

**Anomalies within the cluster are between 300m and 600m in width, suggesting relatively shallow sources or 100m-300m depth (based on slope depth formula). More detailed inversion and interpretation work will be completed.**

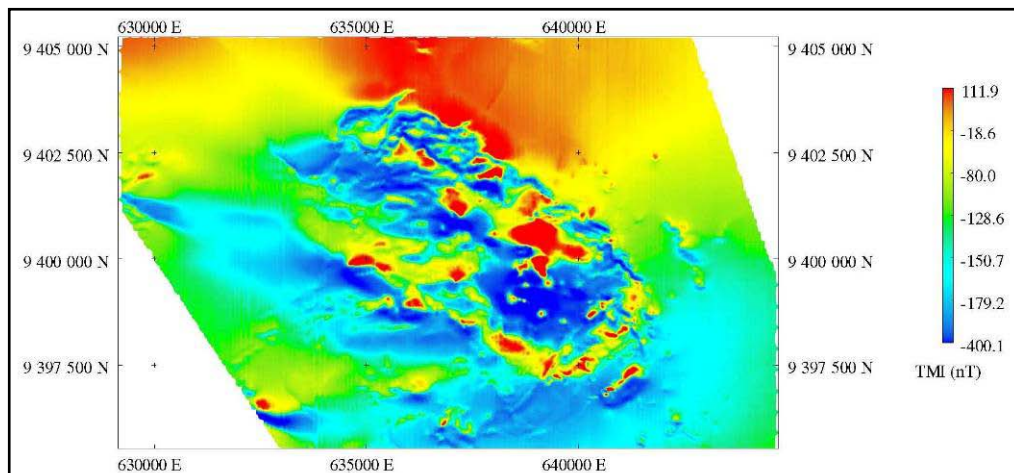


Figure 5. Final field delivered diurnally corrected total magnetic field (histogram equalized)

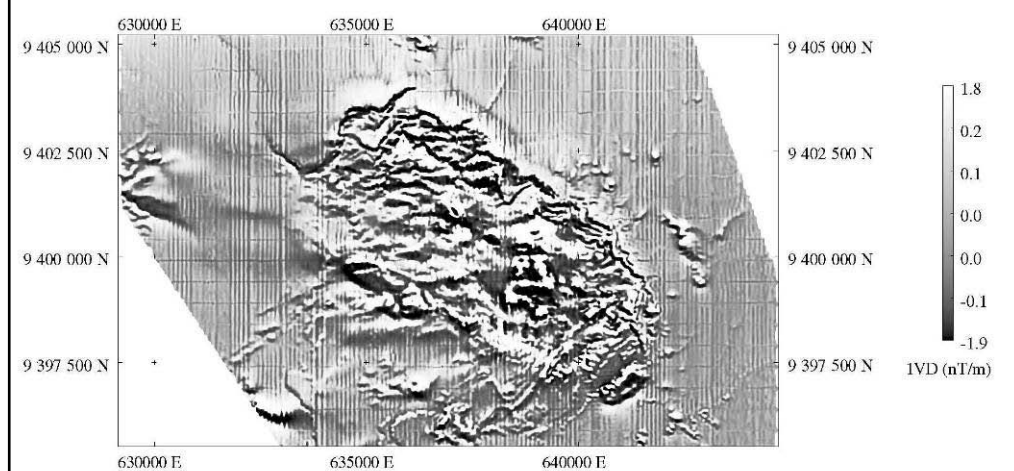


Figure 6. Final field delivered diurnally corrected total magnetic field – first vertical derivative.

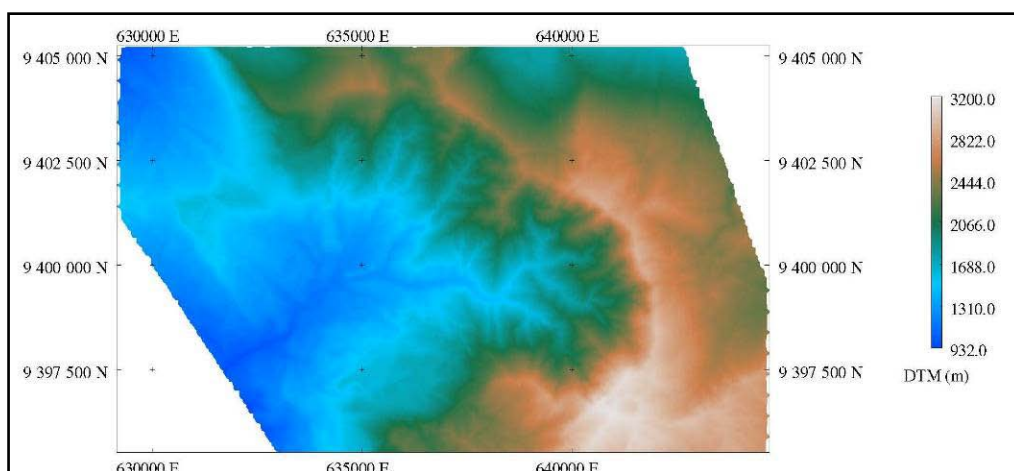


Figure 7. Final field delivered digital terrain model. Calculated by subtracting the radar altimeter from the GPS flight height.

Figure 8. Grid based soil copper assays on thematic contour plan, with proposed locations of initial OTML drill holes

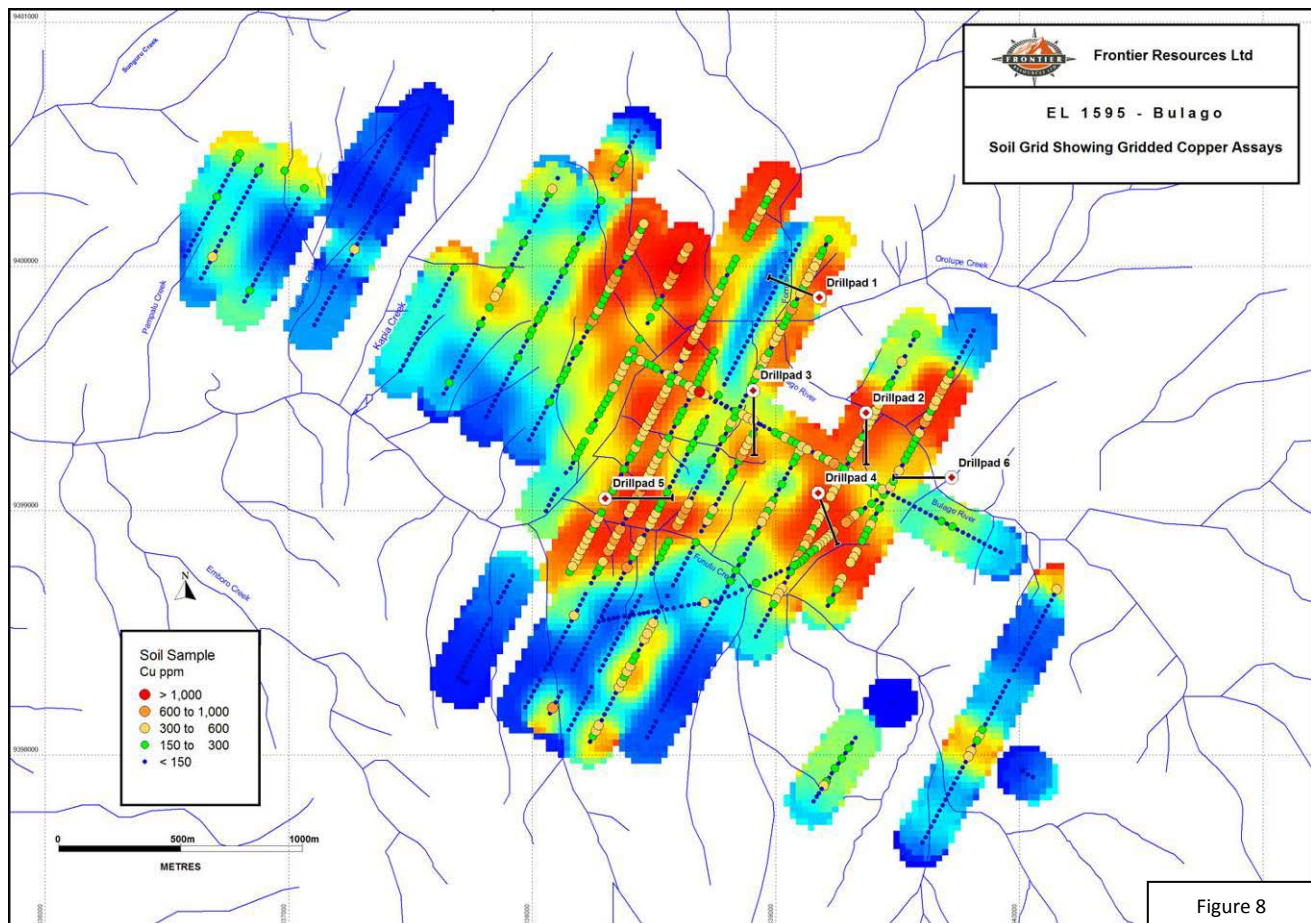


Figure 8

Figure 9. Grid based soil gold assays on thematic contour plan, with initially proposed OTML drill holes.

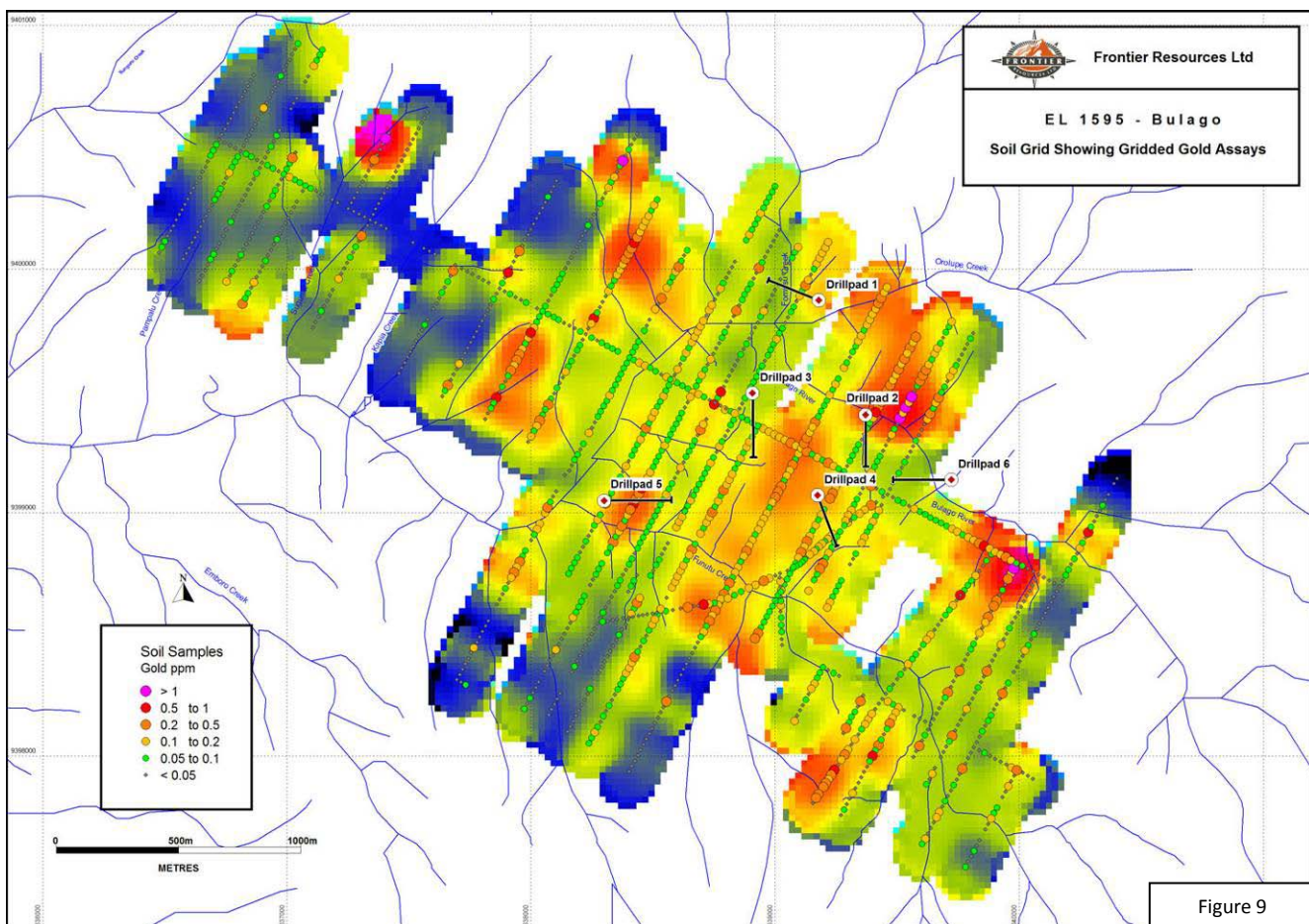
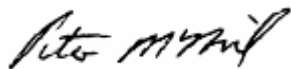


Figure 9

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For additional information relating to the Bulago Project or Frontier Resources Ltd, please see the ASX releases dated 11/1/2011, 9/11/2010, 17/3/2010, 1/3/2010, 15/1/2010, 23/11/2009, 11/9/2009, 2/9/2008, visit our website at [www.frontierresources.com.au](http://www.frontierresources.com.au) or feel free contact me.

## FRONTIER RESOURCES LTD



P.A. McNeil, M.Sc.

CHAIRMAN / MANAGING DIRECTOR

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 2004 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.

## ABOUT FRONTIER RESOURCES LTD

### FRONTIER IS FOCUSED ON EXPLORING FOR AND DEVELOPING MINERAL DEPOSITS IN THE HIGHLY MINERALISED PACIFIC 'RIM OF FIRE' IN PAPUA NEW GUINEA AND THE HIGHLY PROSPECTIVE DOLCOATH GRANITE AND MT READ VOLCANICS OF TASMANIA, AUSTRALIA

- The Company is an innovative and socially responsible ASX listed junior mineral explorer whose shares also trade on the Frankfurt, Berlin and Munich Stock Exchanges.
- Frontier's Directors have more than 150 years combined experience in PNG and Australia to serve the interests of the company and its shareholders.
- Frontier operates with a general policy of 'DRILLING' our quality projects using our purpose built and self manufactured, cost effective, environmentally friendly, man-portable diamond core rig.
- The Company has a 100% interest in four Exploration Licences (approx. 1,140 km<sup>2</sup>) and three Exploration Licence Applications (approx. 2,212km<sup>2</sup>) in PNG. Three ELs and two ELAs are subject to Joint Ventures with PNG producer Ok Tedi Mining Ltd.
- Frontier also has two Exploration Licences and a Retention Licence (123 km<sup>2</sup>), + three EL Applications and an ERA in Tasmania.
- The tenement portfolio offers excellent mineral deposit potential. Primary targets are World Class copper-gold-molybdenum porphyry, high grade gold epithermal, gold-base metal & tungsten skarns + polymetallic VMS (zinc-lead-silver-gold) deposits.
- The projects all have high-grade exploration results in rock, trenches and/or drill hole and are in the same or similar geological terranes as existing World Class and/or major mines.

### THE 100% OWNED MT ANDEWA EL IN PNG HAS EXCELLENT GOLD AND COPPER MINERALISATION POTENTIAL

- Frontier undertook a major three dimensional Induced Polarisation (3D-IP) geophysical program over a 21 sq km grid at the Andewa gold and copper Project on the island of New Britain in Papua New Guinea in 2010 and collected in excess of 5,000 soil and rock samples. The soil and rock assays are now being collated for announcement.
- The 3D-IP survey was a remarkable success that showed three exceptionally extensive, voluminous and intense, chargeability anomalies that compellingly demonstrate the presence of very large sulphide systems from on-surface to more than 800m deep...
- The total chargeability anomaly (>30ms) area is approximately seven square kilometres, consisting of three very large, spatially related and intense chargeability anomalies called the Core Chargeability (CCZ), Ber and Ekhos Zones. The Ekhos chargeability anomaly is 3.3 Km<sup>2</sup> in area, the CCZ is 3.0 km<sup>2</sup> and Ber is approximately 0.5 km<sup>2</sup> (at 150m below sea level).
- The total anomalous chargeability area is approximately 5,400m long (E-W) and 3,000 wide (N-S). The Ekhos chargeability anomaly is approximately 3,850m long x 1,750m wide. It averages about 1,000m wide and has a higher grade chargeability core zone that is approximately 2,400m long and 1,000m wide (at >30ms and 400m below topography). The CCZ is approximately 2,900m long (NW to SE) and a maximum of 2,100m wide, averaging 1,000m wide.
- Ekhos is the largest and closest to surface 3D-IP chargeability anomaly at Andewa, with much of it very intense at >45ms; it is open to the south and east but appears defined in general at depth. The CCZ chargeability anomaly is open to the south AND at depth, however, it's very intense core (>45ms) appears to be adequately resolved. The CCZ also has large anomalous areas at >45ms chargeability that extend to depths greater than the 800m modelled maximum.
- Each major chargeability anomaly is surrounded by a sub-circular high-resistivity anomaly that appears to merge near the edge and off the grid, to become one approximately 6km diameter resistivity anomaly in the centre of the Mt Andewa crater, with 'holes' in it where the strong chargeability anomalies exist .
- Frontier has previously drilled gold mineralisation at Komsen on the western margin of the CCZ from surface to a maximum depth of 320m below surface in a limited program, with drill intercepts containing significant gold and base metals such as 2m of 5.43 g/t gold + 95 g/t silver + 11.1% zinc + 2.3% lead + 0.12% copper and 7.9m of 10.01g/t gold.
- Field crews are again in the field conducting infill soil sampling and preparing for a deep drilling program scheduled for April 2011 with our own drilling rigs and crews.

## HIGHLY PROSPECTIVE TENEMENTS AND FRONTIER'S EXPLORATION SUCCESS IN PNG CULMINATED IN AN EXCELLENT STRATEGIC ALLIANCE - JOINT VENTURE WITH WORLD CLASS COPPER PRODUCER OK TEDI MINING LTD (OTML)

- Three ELs and two ELAs are subject to 2 joint ventures that require a total earn-in of US\$60 million over 6 years, consisting of US\$12 million for each of the 5 projects.
- Frontier then has a deferred carry to completion of a Bankable Feasibility Study on each tenement.
- The Company will retain a 42% interest (dilutable) in the Bulago and Leonard Schultz ELs and a 19.9% interest (non-dilutable) in the Likuruanga EL + Central and East New Britain ELAs, to the completion of a Bankable Feasibility Study.
- The JVs cover a total area of 2,763 km<sup>2</sup>.
- OTML have completed large aeromagnetic and radiometric programs at each EL in the Joint Venture to discriminate and rank targets for follow up exploration, including drilling in 2011.
- OTML is a major producer of copper concentrate from the Ok Tedi mine (that started operations in 1984) and has become the single largest business contributor to the economy of PNG. In 2009, OTML's export earnings were K4 billion, representing 33% of PNG's total export earnings. The contributions of the mine to PNG are not simply economic, with employment, education and health services all facilitated by the mine.

### PNG exploration results from the JV projects have included:

- The Bulago JV has 10 zones of high-grade gold in outcrop channel samples at the Suguma and Funutu Prospects from continuous chip outcrop channel samples. Trench intercepts included 27m of 66.8 g/t gold, 4m of 135.6 g/t gold, 9m of 64.0 g/t gold, 16m of 36.5 g/t gold, 18m of 40.3 g/t gold, 7.5m of 67.0 g/t gold and 9m of 24.0 g/t gold.
- The Kru and nearby Wasi Prospects in the Leonard Schultz JV have excellent gold outcrop trench channel sample assay results including 16m of 18.60 g/t gold contained within 76m of 5.35 g/t gold. Additional significant assay results included 22m of 2.71 g/t and 36m of 1.15 g/t (within 384.3m of 0.67 g/t gold) in outcrop trench.
- Likuruanga JV - Esis Prospect has 27m of supergene mineralisation grading 0.71% copper (from 33m depth), plus 66m of primary grading 0.42% copper (from 86.6m to end of hole), with the last 7.6m of the hole grading 0.49% copper.

## EXPLORATION IS RAMPING UP ON FRONTIER'S TASMANIAN EXPLORATION AND RETENTION LICENSES, TARGETING KNOWN HIGH-GRADE (PLUS POTENTIALLY BULK MINEABLE) TUNGSTEN, GOLD AND BASE METAL DEPOSITS

The Cethana Project covers an E-W spine of the highly mineralised Dolcoath Granite and a number of skarn and vein deposits, from east to west (proximal to distal) including silver, tin, tungsten, molybdenum, gold+ silver + zinc + lead (Narrawa), zinc+ gold (not FNT's), fluorine (not FNT's) and gold + bismuth (Stormont).

### Frontier is specifically targeting tungsten along with other metals in this highly mineralised district.

- There are at least 55 historic workings (shafts, adits and small open pits) within the targeted area testifying to its highly prospective and mineralised status.
- The primary commodity mined in the district was tungsten in at least 23 workings, tin in 9 workings and gold in 7 workings (many are unspecified).
- Previous Frontier tungsten drill intersections included 1m grading 1.98% WO<sub>3</sub> near the NW end of the Narrawa Deposit, within a broad low grade geochemical halo that averaged 14m of 0.20% WO<sub>3</sub> (from 21m).

### Narrawa is a stratabound/stratiform skarn Deposit hosted within 4 steeply dipping on/near surface lodes, which could be mined by open pit mining methods.

- The deposit contains an Indicated and Inferred resource with 14,125 ounces of gold, plus 131,300 ounces of silver, 2,765 tonnes of lead and 2,335 tonnes of zinc (at 0.5g/t gold cut-off grade), that is up to 220m long, 20m wide and 60m deep, within 209,330 tonnes of rock grading 2.10 g/t gold, 19.5 g/t silver, 1.32% lead and 1.12% zinc.
- The Indicated Resource consists of 162,755 tonnes grading 2.11 g/t gold, 20.5 g/t silver, 1.42% lead and 1.2% zinc.
- The Inferred Resource consists of 46,574 tonnes grading 2.07 g/t gold, 16 g/t silver, 0.98% lead and 0.81% zinc.

### Frontier's detailed exploration and expenditure submission to Mineral Resources Tasmania for the Stormont Deposit - ERA 834 was successful and should be granted in due course.

- The 9 km<sup>2</sup> ERA consolidates Frontier's tenement portfolio in the Central-North of Tasmania and provides additional highly prospective ground for exploration.
- ERA 834 contains the on-surface Stormont Deposit, with an Inferred Resource of 14,250 ounces of gold plus 304 tonnes bismuth, within 112,500 tonnes of mineralised rock grading 3.94 g/t gold plus 0.27% bismuth (1.0g/t gold cut-off grade).
- It is planned to increase the size of the resource and upgrade it from Inferred to Indicated.