



**ADDRESS**  
PO Box 35  
North Perth  
WA 6906 Australia

**PHONE**  
+61 (8) 9295 0388  
**FAX**  
+61 (8) 9295 3480

**EMAIL**  
info@frontierresources.com.au  
**WEBSITE**  
www.frontierresources.com.au

**ABN 96 095 684 389**  
**ASX : FNT**

ASX Limited  
Company Announcements Office  
Announcement

22nd February 2010

**Frontier's exploration portfolio has been maximised around the Andewa Project, with ELA 1951 encompassing it and the gold and copper prospective 'lookalike' at neighbouring Mt Schrader**

Frontier Resources Ltd is pleased to announce it has lodged a 2,477 square kilometre Exploration License Application (ELA) for precious and base metal mineral exploration in West New Britain Province, Papua New Guinea (PNG). ELA 1951 -Schrader encompasses the Company's highly prospective Mt Andewa Project and significantly enhances our exploration portfolio in the district (Figures 1 and 2).

As background, Frontier undertook a 3D-IP geophysical program at Andewa (in Q3 and Q4 of 2010) over a 21 sq km grid and it was a remarkable success, demonstrating a 7 square kilometre 3D-IP chargeability anomaly, with excellent (+800m) depth potential for gold and copper mineralisation associated with intense sulphide systems (chargeability /conductivity and resistivity anomalies).

The Mt Andewa and Mt Schrader craters are 150km and 180km west of the port of Kimbe (capital of West New Britain Province), respectively (Figure 3). The areas are accessible by barge, boat, helicopter and locally logging tracks (Figure 4). Most known mineral prospects on New Britain Island are already covered by existing tenements or ELAs. The Schrader area is a grassroots ELA and it will enable systematic exploration and evaluation of Mt Schrader itself, plus the 'very lightly' to unexplored surrounding district. There are no known impediments to the granting of the ELA (subject to normal procedures with the PNG Mineral Resource Authority/Mining Act and subsequent Ministerial approval) The suggested financial commitment is K750,000 (~A\$300,000) over the initial 2 year renewable term.

ELA 1951 -Schrader also covers two major WNW trending structural zones (and a N-S zone) that could host gold and copper mineralisation. Andewa's Komsen gold Prospect is within a WNW trending mineralised structure. These structural zones are important for the localisation of mineralised intrusions further east in New Britain, such as the Kulu - Awit trend that hosts (SE to NW) the Nakru, Plesyumi, Simuku and Mt Penck deposits, plus other prospects.

The Mt Schrader stratovolcano crater has several amphitheatre like topographic anomalies that have previously been partially explored (Figure 5). Known mineralisation includes two gold stream sediment anomalies (to 0.175 g/t gold in Borei Creek and Ugurisi River - Figure 6), copper in rock samples (to 530 ppm Cu and 1020 ppm arsenic at Yepmaling Creek Prospect) and strong mercury anomalies (to 17,900 ppm) with hydrothermal breccias in the Yep amphitheatre. Alteration zones were identified at Yep and Aour outside the Schrader crater and arsenic alteration haloes are associated with dacite domes. These are all favourable indicators for possible gold and copper mineralisation /deposits in this type of 'high level' geological environment.

Exploration at Schrader will initially consist of ASTER hyperspectral (satellite) and SRTM digital imagery evaluation to locate clay alteration zones and topographic anomalies. Detailed work inside Mt Schrader plus regional evaluation and reconnaissance in the structural zones will utilise panned concentrate + silt + rock chip/float + soil sampling, geological mapping and eventually hand trenching. A three dimensional Induced Polarisation geophysical survey will be a high priority inside Mt Schrader (due to its success at Andewa) if evidence suggests it is warranted.

For personal use only

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

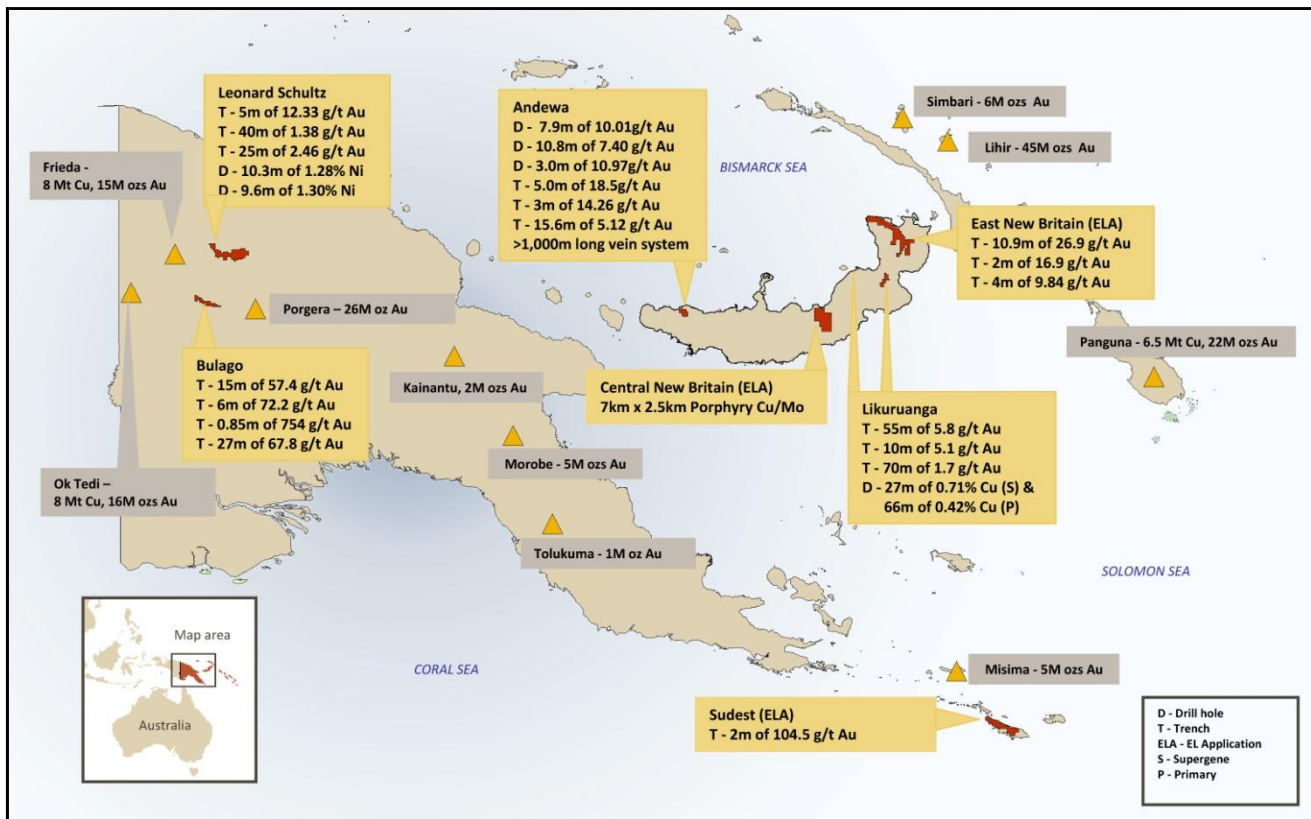


Figure 2. An SRTM topographic image of the Mt Schrader Exploration License Application in West New Britain Province, surrounding the highly prospective Andewa EL.

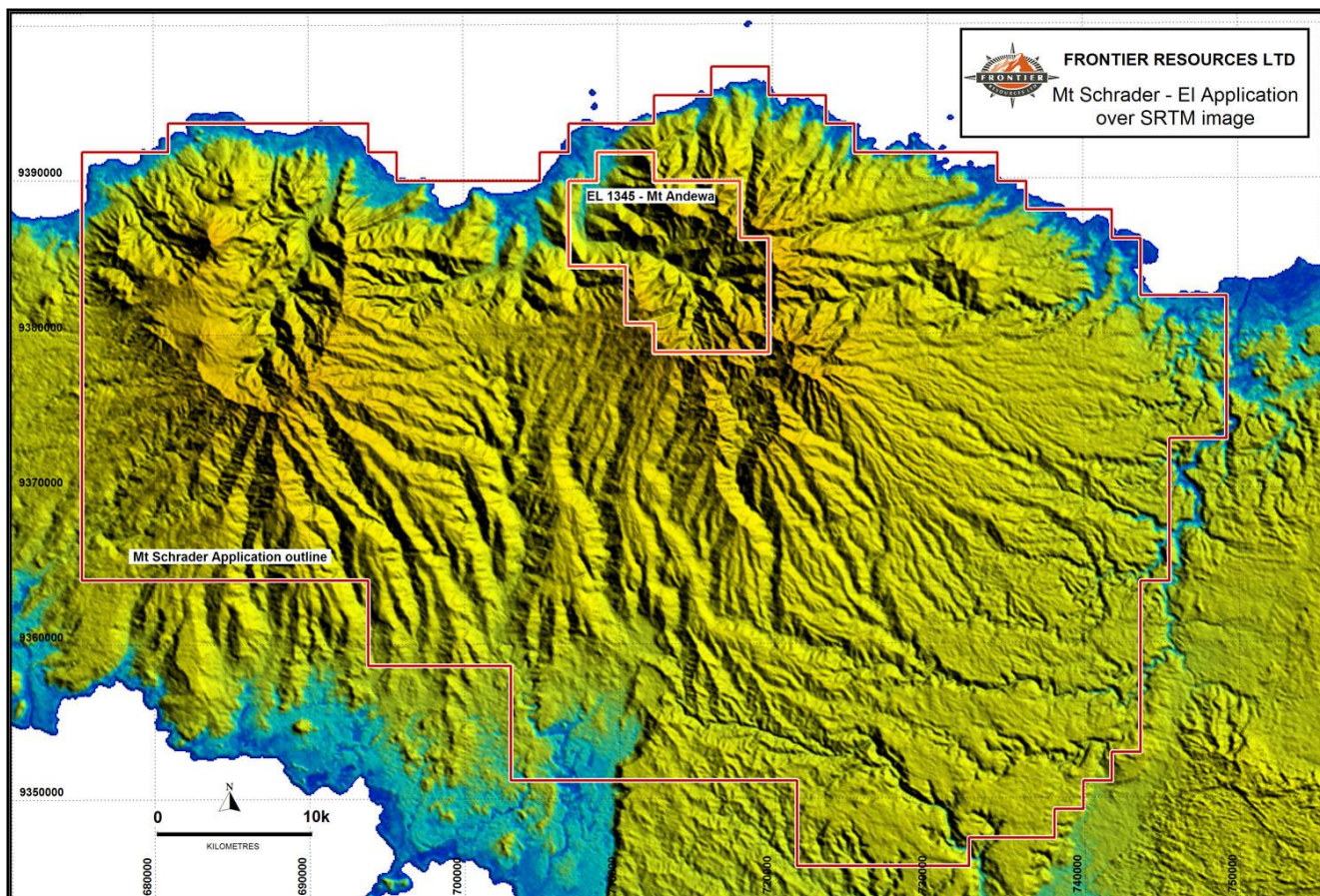




Figure 3. The Mt Schrader Exploration License Application plotted over the PNG Geological Survey regional geology plan, showing the location of EL 1345.

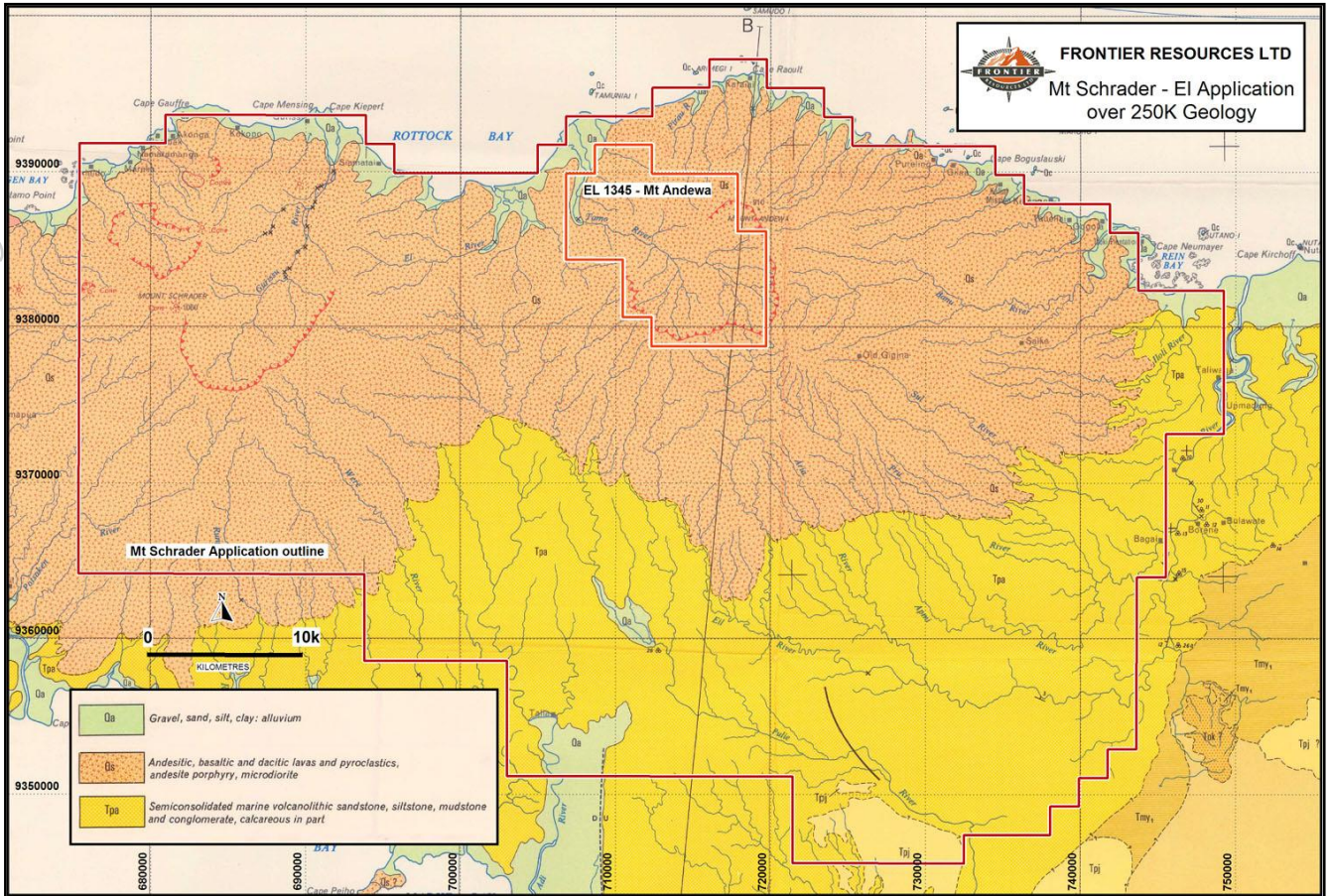


Figure 4. Photo looking from the NE slope of Mt Andewa (outside EL 1345) and looking to the east. It shows the ELA area is easily accessible from the coast, logging tracks and kunai grass areas. The eastern edge of the ELA is in the 'indent' in the bay.





Figure 5. SRTM topographic image of the Schrader ELA showing gold anomalous areas in drainages (in the magenta areas) from historic exploration results, the crater rims, plus several circular features.

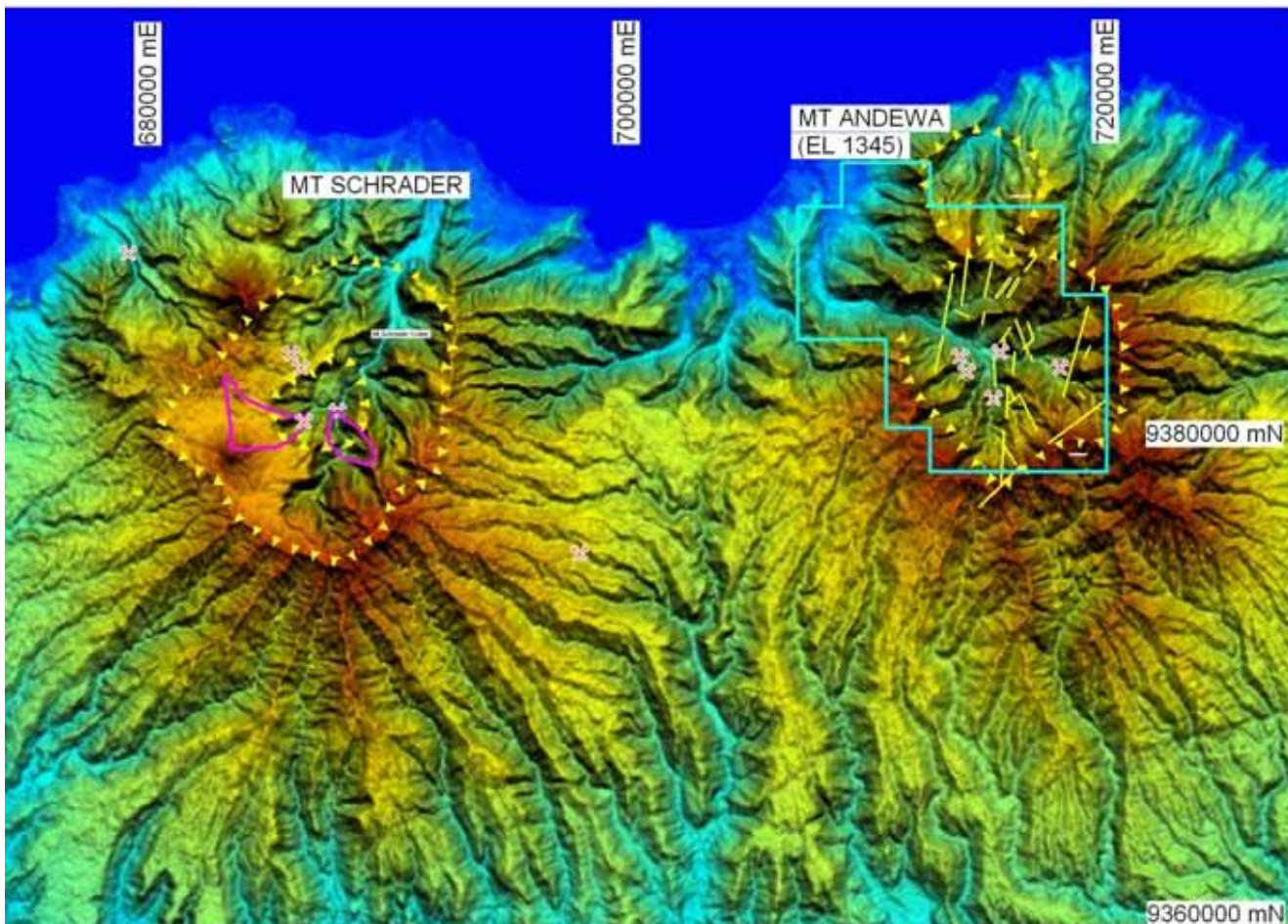
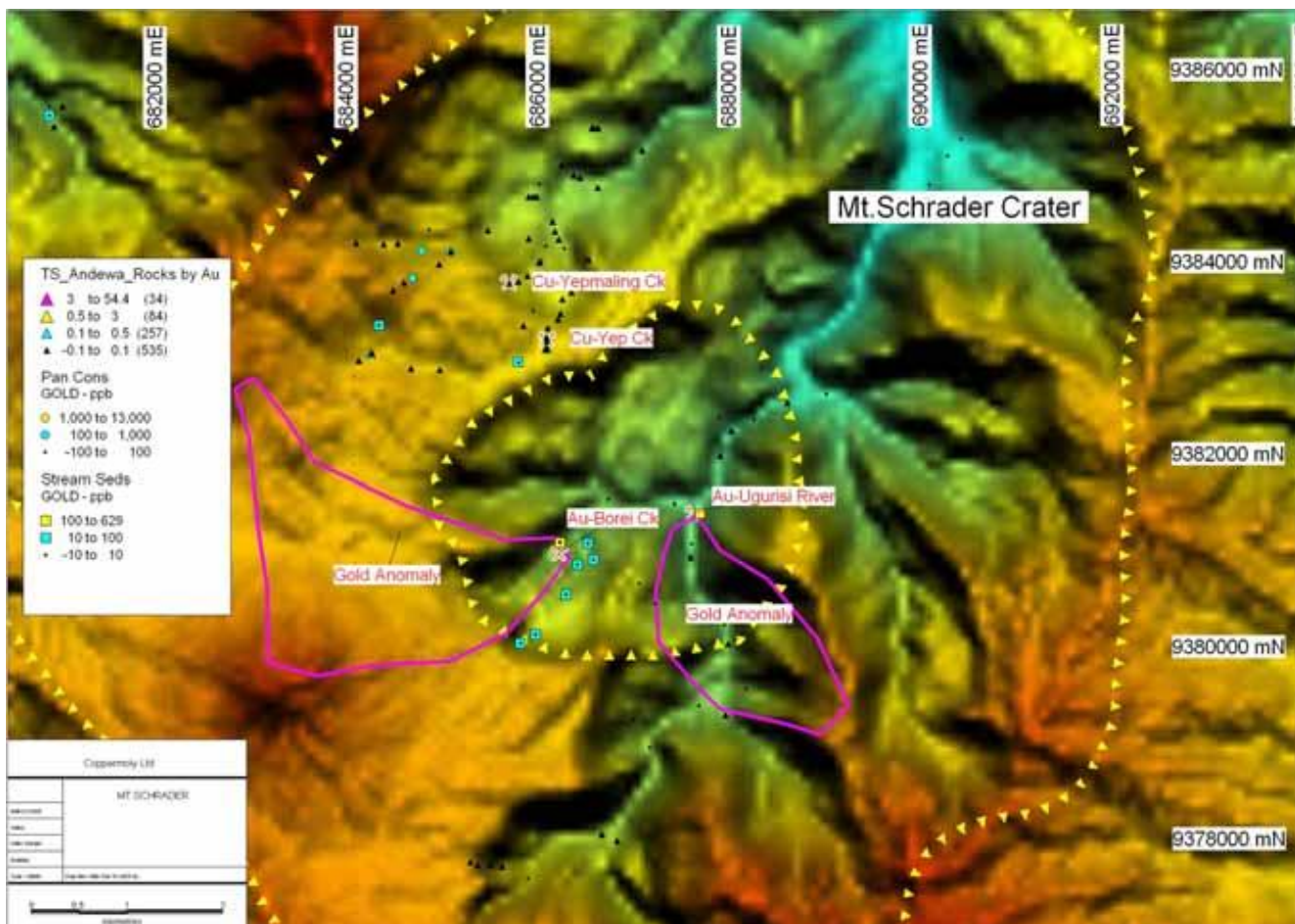


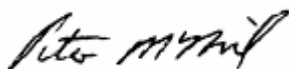
Figure 6. Close-up SRTM topographic image of the Mt Schrader crater showing gold anomalous areas in drainages from late 1980's exploration results. Note the paucity of existing sampling.



For personal use only

For additional information relating to Frontier Resources please 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. 2,212 km<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 Andewa 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 on-surface to more than 800m deep sulphide systems.
- 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 approximately 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) appear 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 is then deferred carried 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 with 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.