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ABN 96 095 684 389 ASX : FNT

ASX Limited Company Announcements Office Announcement

6<sup>th</sup> January 2011

# Revision to ASX Release Dated 5/1/2010

## **Exploration, Drilling and Enhanced Tenement Portfolio**

## **The Tasmanian Frontier**

Frontier inadvertently did not fully qualify the Narrawa Inferred and Indicated Resource in the release on pages 2 and 5 as required. This has been rectified with the clarification including the addition of the details of the Inferred component of the Narrawa resource and the removal of a gold equivalent value.

FRONTIER RESOURCES LTD

P.A.McNeil, M.Sc. CHAIRMAN / MANAGING DIRECTOR



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# Exploration, Drilling and Enhanced Tenement Portfolio

## **The Tasmanian Frontier**

- An extensive soil sampling program has been completed at the Cethana-Narrawa Project, with a primary focus on tungsten plus gold and base metals.
- Frontier's 'tender' to Mineral Resources Tasmania for the Stormont Gold Deposit was successful and ERA 834 awaits Ministerial approval. Stormont contains an Inferred Resource of 14,250 ounces gold at 3.95g/t gold and excellent exploration potential to grow the resource.
- Frontier's custom diamond drilling rig and equipment has been mobilised to the Elliott Bay Project and prepped for the commencement of a 1,200m drilling program commencing mid-January, 2011 targeting high-value precious and base metal massive sulphide deposits.
- An Exploration License Application was submitted targeting the highly prospective volcanic rocks adjoining (to the north) Frontier's Elliott Bay Project, maximising coverage of the prospective volcanic horizon.
- An Exploration License Application was lodged targeting precious and base metals over the Cygnet historic hard rock (to 100 g/t gold in outcrop) and alluvial goldfield in southern Tasmania.
- A diamond drilling program is planned for the Cethana /Narrawa Project in Q2, 2011 targeting tungsten, gold and base metal targets which will be defined by the soil sampling assays.
- Additional custom built diamond drilling rigs are being constructed in preparation for the 2011 drilling campaigns.
- The 2011 exploration team are very capable, incentivised and ready for success.



Frontier Resources Ltd is pleased to announce the completion of field work at both of the Company's project areas in Tasmania's highly mineralised volcanic and intrusive belts. In addition, an aggressive 'open ground' and tendered acquisition strategy has enhanced and will consolidate the tenement portfolio.

## An extensive and detailed soil geochemical program was recently completed at the Cethana and Narrawa tenements over a 4km<sup>2</sup> area (at 100m x 50m centres), encompassing and including the Narrawa Deposit and its soil grid.

- The highly mineralised Dolcoath Granite has a spine like shape extending east- west that is responsible for a number of skarn and vein styles of gold, tungsten, tin, lead, zinc, silver and fluorine mineralisation.
- There are at least 55 historic workings (shafts, adits and small open pits) within this 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).
- $\circ$  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).
- The existing Narrawa Indicated and Inferred Resource contains 14,125 ounces of gold, plus 131,300 ounces of silver, 2,765 tonnes of lead and 2,335 tonnes of zinc (using a 0.5g/t gold cut-off grade). The mineralisation is contained within 209,330 tonnes of rock grading 2.10 g/t gold, 19.5 g/t silver, 1.32% lead and 1.12% zinc (see page 5 for individual Inferred and Indicated categories).
- See the "Details" section for additional information.
- Frontier's detailed exploration and expenditure submission to Mineral Resources Tasmania for Stormont - ERA 834 was successful (over other tenders).
  - ERA 834 contains the on-surface Stormont Deposit, with an Inferred Resource of 14,250 ounces gold, within 112,500 tonnes of mineralised rock grading 3.94 g/t gold at a 1.0g/t gold cut-off grade.
  - It is planned to increase the size of the resource and upgrade it from Inferred to Indicated.
  - The 9 km<sup>2</sup> ERA (Exploration License) will consolidate Frontier's tenement portfolio in the Central-North of Tasmania and should be granted in due course.
- A diamond drilling rig and support equipment was successfully mobilised to the Elliott Bay Project and prepped for the commencement of drilling at the Wart Hill Deposit in mid-January, 2011.
  - A minimum 1,200m drilling program has been planned at Elliott Bay testing the favourable horizon south of the offsetting fault for high- value massive sulphide deposits.
  - A downhole electromagnetic (DHEM) geophysical survey will be conducted in at least 3 historic holes to test for 'off-hole' EM anomalies that could represent base metal mineralisation and prospective drilling targets.

- An Exploration License Application (Moores Valley or Wanderer River) has been submitted over the 'very lightly' explored belt of volcanic rocks adjoining and to the north of Frontier's Elliott Bay Project (EL 20/96).
  - The application is highly prospective for precious and base metal massive sulphide deposits and it will enhance and consolidate Frontier's tenement portfolio in the SW of Tasmania.
  - The ELA area will benefit being surveyed by deeper penetrating new generation helicopter borne electromagnetic methods. These will be flown over the entire tenement block to delineate drilling targets upon granting.
- An Exploration License Application was lodged for precious and base metals over the Cygnet historic hard rock and alluvial goldfield in southern Tasmania
  - The Cygnet area produced about 100kg of gold from alluvials between 1877 and 1900.



• Historical exploration has demonstrated up to

100g/t gold in outcrop and 1m of 24g/t gold from limited drilling. Additional gold in drill hole includes 17m of 1g/t gold and 3m of 2g/t, associated with mineralised syenite porphyry.

- The area has good quality airborne geophysics and is an ideal 3D-IP exploration target.
- The application should be granted in due course.

### DETAILS

Exploration has commenced on Frontier's Tasmanian Retention and Exploration Licenses targeting known high-grade plus potentially bulk mineable tungsten mineralisation, gold and base metals.

### Cethana Project (EL 29/2009 Cethana, RL 3/2005 Narrawa and ERA 834 Stormont)

The two contiguous tenements (and third when ERA 834 is granted) have excellent potential for a range of metals. The mineralising Dolcoath Granite has a spine like shape extending east-west and is responsible for skarn and vein style gold, lead, zinc, tungsten, silver, tin, fluorine mineralisation in a number of forms.

Exploration will target major stand alone deposits of:

- tungsten and tin (+/- molybdenum) adjacent to granite
- gold skarn mineralisation
- gold veining in structures and
- the source of the Bell Mountain gold alluvials

The association of magnetite with skarn mineralization is well understood, however, at Stormont the gold occurs in the less magnetic sections of the skarn. There are high quality aeromagnetics over the areas of interest and this will assist in targeting but may not necessarily correspond directly with gold mineralisation.

Figure 3 shows the merged historic aeromagnetic data as a first vertical derivative image. The Stormont ERA is in the central west (9 km<sup>2</sup>), then is the <u>excluded</u> Moina Fluorite deposit RL (2 km<sup>2</sup>) and then the Narrawa RL (3km<sup>2</sup>), within the large Cethana EL (109km<sup>2</sup>). The 'block' size is 1km x 1km. The Dolcoath Granite is the green to blue rimmed circular aeromagnetic low on the SE corner of the Narrawa RL.

The initial focus is soil sampling on a 100m x 50m grid for gold. Analysing for multi-elements will be undertaken in 2011 using in-house XRF assaying equipment currently being purchased. The grid will be infilled to 50m x 25m in anomalous zones. Soils have been effective in locating gold, arsenic and tungsten on the Narrawa grid and should help locate near surface occurrences of those metals in the newly gridded area.

The tungsten potential of Narrawa was evaluated by the last hole drilled which demonstrated 0.65m grading 1.04% WO<sub>3</sub>, within 10.5m grading 0.228% WO<sub>3</sub>. This hole actually missed the target zone by drilling into the old adit – i.e. we drilled excellent grades but the best mineralisation was already mined out at that shallow level. We now intend to drill to deeper levels. In addition Frontier undertook selected drill hole re-analysis of Narrawa Deposit core and hole NC48 returned 1m grading 1.98% 0.228% WO<sub>3</sub>, within 16m grading 0.178% 0.228% WO<sub>3</sub>, from 29.6m.



These results have documented structurally controlled higher grade tungsten located within significant widths of lower grade, but potentially bulk mineable tungsten mineralisation. Holes NC 48 and NC53 (above) are located more than 400m apart across strike but on the same general tungsten anomalous trend, indicating significant strike potential and multiple mineralised lodes. The gold and base metals at Narrawa are located in one set of structures and the tungsten is associated with a different set of structures.



Figure 4 shows the Cethana area soil sampling on a Mineral Resources Tasmania geological plan, showing the area sampled in blue dots (100m x 50m spacings) and the historic Narrawa grid in black dots. The coloured contours on the Narrawa grid represent tungsten with >100ppm in yellow and >250ppm in red. The geology grid is 1km square. Figure 5 shows the tungsten soil assays and historic drilling that have demonstrated a large area of anomalism. The +800m strike length between holes containing tungsten <u>remains untested</u>. The 2011 drill program will target this area.

Six historic holes drilled for gold also returned potentially economic grades of tungsten, peaking at 0.5m of 1.26% WO<sub>3</sub> with 0.12% molybdenum. Five channel samples also returned anomalous tungsten with up to 1.5m grading 0.70% WO<sub>3</sub> and also 3m grading 1.17 g/t gold + 0.1% WO<sub>3</sub>. The historic Squib Mine produced 34.5 tonnes of tungsten. Dump samples have analysed up to 5% WO<sub>3</sub> and a sample from a lode in a drive returned 3.19% WO<sub>3</sub>. Note that calculations for Ferrotungsten herein assume all concentrate is FeW, equating to 76.7% tungsten, whereas commercial concentrate typically contains 70 to 75% tungstic oxide (WO<sub>3</sub>) or 55 to 63% tungsten.



#### Narrawa Deposit (Historic Information)

Narrawa is a steeply dipping, on/near surface, stratabound/ stratiform skarn deposit hosted within 4 lodes which are near surface and can 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. The mineralisation is contained 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. The Indicated and Inferred Resource is up to 220m long, 20m wide and 60m deep.

Good scope exists to continue to increase the Narrawa Resource along strike in both directions, within the fault offset dip component and in other relatively untested sectors of the project area. Excellent mineralisation potential exists along strike to the southeast, with additional drillholes yielding 3.7m of 1.11

g/t gold + 1.35m of 0.19g/t gold + 42 g/t silver+ 2.0% lead + 1.46% zinc + 0.25% copper and 2.2m of 0.12g/t gold + 15 g/t silver+ 0.79% lead + 3.26% zinc + 0.25% copper, associated with a UTEM anomaly.

In addition, across strike from Narrawa in the 666 lode there are mineralised holes returning 1.5m of 25.2 g/t gold, 2m of 14.98 g/t gold, 7m of 2.13 g/t gold and 4.5m of 3.26 g/t gold, that are <u>not included</u> in the resource estimation.

#### **Stormont Deposit**

Frontier previously held the Stormont Deposit as a Retention License that expired mid 2010. The Company submitted an application (tender) for ERA 834 Stormont, covering 9km<sup>2</sup> and was successful. The application requires Ministerial approval and should be granted in due course. The Exploration License (when granted) consolidate Frontier's tenement portfolio in the Central-North of Tasmania.

Stormont is a skarn-style stratiform deposit located in the core and on the limbs of a shallowly southeasterly plunging syncline at its northwestern end. The deposit is located on or very near surface and ranges in stratigraphic thickness between 10m and 15m. A consistently mineralised resource is modelled in the 150m long, NW part of the central syncline, referred to as the high grade zone.

The maiden Inferred Resource for the 'high grade' zone at Stormont contains 13,430 ounces gold, 27.7 tonnes bismuth and 10,340 ounces silver, within 91,400 tonnes of mineralised rock grading 4.57g/t gold, 0.30% bismuth and 3.52g/t silver, utilising a 1.5g/t gold cut-off grade(the resource quoted in the Summary section used a 1.0 g/t gold cutoff grade).

There is good scope to increase the resource with additional drilling in the SE of the central syncline, the untested western sector of the western syncline and proximal to the eastern thrust. Significant high grade gold+/-bismuth intersections have been demonstrated over the entire 300m known length of the central syncline, with drillholes returning up to 4m of 12.7 g/t gold, that is not included in the resource estimation.

The gold and base metal resources at the Narrawa and Stormont Deposits will be upgraded with additional drilling and metallurgical testwork. The deposit are only 6.5km apart.

For information relating to Frontier Resources, exploration in Tasmania or Papua New Guinea, please visit the Company's website at <u>www.frontierresources.com.au</u> or feel free contact me.

FRONTIER RESOURCES LTD

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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**

- 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 has a 100% interest in 4 Exploration Licences (approx. 1,140 km<sup>2</sup>) and 3 Exploration Licence Applications (approx. 2,212km<sup>2</sup>) in PNG. 3 ELs and 2ELAs are subject to Joint Ventures with Ok Tedi Mining Ltd.
  - o Frontier also has 2 Exploration Licences + 1 Retention Licence (123 km<sup>2</sup>), plus 2 EL Applications and 1 ERA in Tasmania.
  - The portfolio offers excellent mineral deposit potential, with primary targets being World Class copper-gold-molybdenum porphyry, high grade gold/silver epithermal, gold– base metal skarn, tungsten skarn and polymetallic VMS (zinc-lead-silvergold) deposits.
  - The projects <u>all</u> 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 recently completed a very large (~25 km<sup>2</sup>), grid-based geophysical, geochemical and geological exploration program that demonstrated a major mineralised system with compelling new drilling targets in multiple prospect areas.
  - The 3D Induced Polarisation (3D-IP) survey defined up to 2km x 2km chargeability and resistivity anomalies that could be directly associated with base metal mineralisation.

- Previous Frontier gold in trench assay results at Mt Andewa Komsen Prospect included 5.0m of 18.5 g/t, 3.7m of 12.6 g/t, 3m of 14.26g/t and 21.6m of 4.41 g/t gold and drill results include 7.9m of 10.0 g/t gold, 10.8m of 7.0 g/t gold and 3m of 11.0 g/t gold.
- The Company's drilling has shown the Komsen structure is consistently gold mineralised and it remains open in all directions (to >320m depth).
- Highly prospective tenements and Frontier's exploration success in PNG culminated in an excellent strategic alliance Joint Venture (relating to 3 ELs and 2 EL Applications) with World Class copper producer Ok Tedi Mining Ltd (OTML) in May 2010.
  - The joint ventures stipulate 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 to the completion of a Bankable Feasibility Studies and a 19.9% interest (non-dilutable) in the Likuruanga EL + Central and East New Britain EL Applications.
  - OTML's minimum exploration commitment before withdrawal is US\$0.5 million/project, totalling US\$2.5 million if the applications are granted.
  - 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.
  - Frontier have retained 100% of the Andewa EL and the Sudest ELA.
- > 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.
- 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 is an innovative and socially responsible ASX listed junior mineral explorer whose shares also trade on the Frankfurt, Berlin and Munich Stock Exchanges.