



ADDRESS
PO Box 35
North Perth
WA 6906 Australia
ABN 96 095 684 389

PHONE
+61 (08) 9295 0388
FAX
+61 (08) 9295 3480

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

ASX Limited
Company Announcements Office

31 January 2011

TECHNICAL REPORT – QUARTER ENDED 31st DECEMBER 2010

- ➔ **Three exceptionally extensive, voluminous and intense, three dimensional Induced Polarisation (3D-IP) chargeability anomalies have demonstrated the presence of very large, on-surface to >800m deep sulphide systems at the Andewa gold and copper Project on the island of New Britain in Papua New Guinea (PNG).**
- ➔ **A large and very detailed aeromagnetic and radiometric geophysical survey was completed by Ok Tedi Mining Ltd at the Bulago Joint Venture (EL 1595), in Southern Highlands Province, PNG.**
- ➔ **Frontier's detailed exploration and expenditure submission to Mineral Resources Tasmania for Stormont - ERA 834 was successful (over other tenders). The ERA 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.**
- ➔ **A diamond drilling rig and support equipment was successfully mobilised (late 2010) to the Elliott Bay Project and prepped for a minimum 1,200m drilling at the Wart Hill Deposit targeting high- value massive sulphide deposits. Downhole electromagnetic (DHEM) geophysical surveys will be undertaken to provide vectors for drilling to the base and precious metal mineralisation. Drilling has just commenced.**
- ➔ **An Exploration License Application (ELA) 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) enhancing and consolidate Frontier's tenement portfolio in the SW of Tasmania. The ELA area will be surveyed by deeper penetrating new generation helicopter borne electromagnetic methods once granted.**
- ➔ **An Exploration License Application was lodged for precious and base metals over the Cygnet historic hard rock and alluvial goldfield (100kg recorded production of gold from alluvials between 1877 and 1900) in southern Tasmania. Historical exploration has showed up to 100g/t gold in outcrop and 1m of 24g/t gold from limited drilling.**
- ➔ **Frontier own two diamond drill rigs which are used to help cost effectively define precious and base metal mineralisation on the Company's PNG and Tasmanian properties.**

DETAILS

Figure 1 shows the locations of all Frontiers licenses in Papua New Guinea and selected exploration results.

Andewa gold--copper Project

Three exceptionally extensive, voluminous and intense, three dimensional Induced Polarisation (3D-IP) chargeability anomalies have compellingly demonstrated the presence of very large on-surface to >800m deep sulphide systems at the Andewa gold and copper Project on the island of New Britain in Papua New Guinea (Refer to figures 2, 3, 4 and 5).

There is also a major ring or donut shaped high-resistivity anomaly (figure 6) that surrounds the main chargeability zone, reflecting hydrothermal fluid movement that resulted in silicification or quartz veining in ring, radial and other types of fractures associated with a porphyry intrusion. The margins and more intense central sectors of the resistivity anomalies are valid drill targets.

The Andewa Project is owned 100% by Frontier and is located near the north coast of the island of New Britain, in Papua New Guinea. Rocks within the 9km wide crater show evidence of significant hydrothermal alteration, with five high-level gold prospects demonstrated within a 7 km by 2.5 km structural zone (figure 4). The Andewa Valley is uninhabited.

The Company completed a major 21 sq km geophysical, geochemical and geological exploration program at Andewa in December, 2010. Most assay results from soil and rock chip sampling have been received and are now being compiled for release as soon as possible.

The main chargeability anomaly demonstrated is referred to as the 'Core Chargeability Zone (CCZ)'. It is very large, sub-equant and approximately 2,000m wide x 2,000m long (at >30ms) (figures 7-9 and 13-15).

- The Core Chargeability Zone clearly demonstrates a very large and voluminous sulphide system that commences at surface, but is more cohesive and extensive at depths of greater than 200m.
- The anomaly appears to be at least partly fault controlled and is fragmented into major blocks near surface, becoming consistently very intense (>50ms) in strength at depth.
- The Core Chargeability Zone is pseudo cup to funnel shaped in relation to both intensity and size, eventually becoming somewhat 'Y' shaped continuing to depth past the approximate 800m below surface modelled maximum depth.
- The gold mineralised Komsen structure is located on the

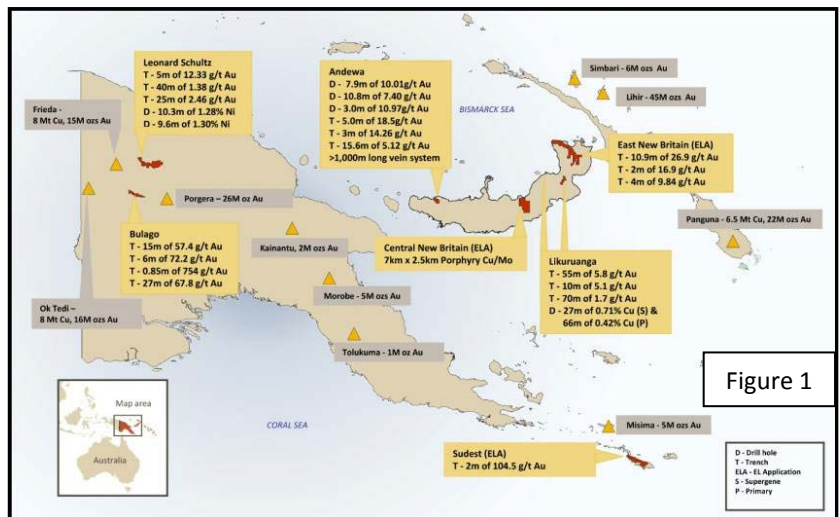


Figure 1

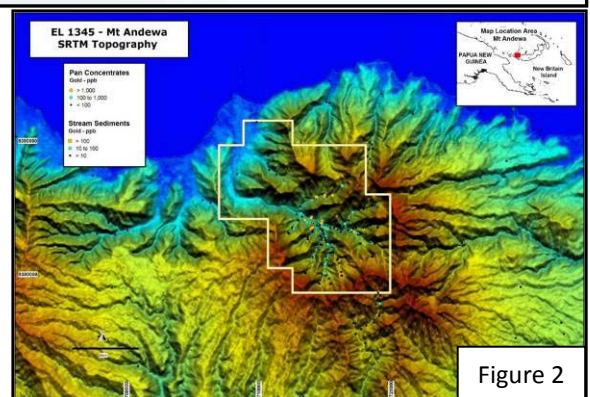


Figure 2



Figure 3

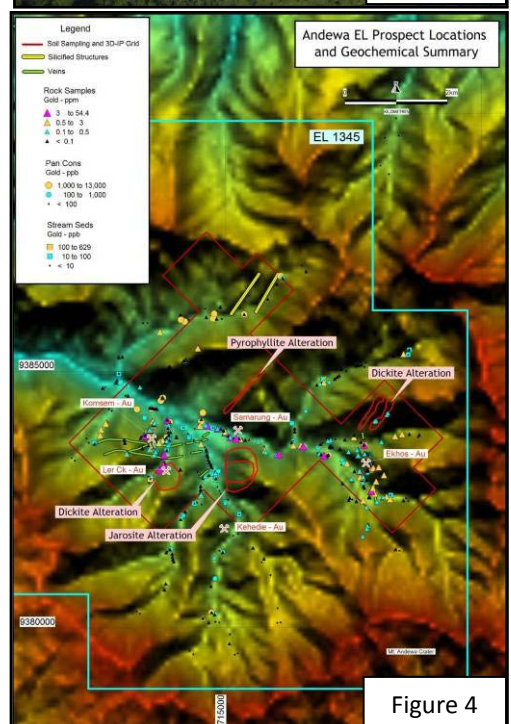


Figure 4

For personal use only

western margin of the Core Zone and extends radially to the west.

- The geophysics has demonstrated there is excellent depth potential for possible gold and copper mineralisation associated with the intense chargeability anomalies /sulphide systems, but the grades of any such mineralisation are unknown.
- As a comparison, Frontier has previously drilled gold mineralisation at Komsen from surface to a maximum depth of 320m below surface in a limited program. All the holes drilled at the Komsen Prospect except one were relatively shallow, averaging exactly 100m downhole. Excellent continuity of mineralisation was demonstrated within the structure with gold intercepts such as 7.9m of 10.01g/t gold and 3.0m of 10.97g/t gold.
- Some Komsen drill intercepts contained significant base metals such as 1m of 19.0 g/t gold + 119.0g/t silver + 10.3% zinc + 0.22% copper, 2m of 5.43 g/t gold + 95 g/t silver + 11.1% zinc + 2.3% lead + 0.12% copper and 0.5m of 2.55 g/t gold + 36 g/t silver + 0.48% zinc + 0.19% copper. Virtually all holes encountered anomalous copper in the order of 400 to 600ppm, but in some holes showed 0.3% to 0.4%.
- The Core Chargeability Zone is located between the Komsen and Ekhos Prospects, where there are excellent indications of gold mineralisation including float rock samples assaying to 54.4 g/t gold + 990 g/t silver and outcrop rock samples assaying to 7.10 g/t gold. In addition, there is consistent jarosite-limonite-clay-pyrite-fuchsite+silica-dog's-tooth quartz alteration along fractures, with sparse and patchy clay-pyrite+silica-fuchsite alteration overprinting the commonly propylitically altered host-rock. It is also marginal to the Samarung Prospect which had a historic float rock sample grading 37.2 g/t gold + 1.58% copper + 0.5 ppm platinum + 44 ppm palladium and numerous narrow auriferous veins and structures.
- Mineralised and altered porphyry float rock has now been discovered and sampled in 2 locations on the Andewa grid (see the photograph -figure 16, of green secondary copper mineralisation on fractures of a porphyritic rock).
- Additional evidence of possible porphyry mineralisation was noted in the Core Zone in an Aster satellite evaluation, including a jarosite equivalent alteration zone, surrounded by a pyrophyllite clay alteration halo and a 1.1km diameter circular feature showing alunite equivalent clay alteration. Alunite can also be associated with High-Sulphidation epithermal gold systems, which can occur genetically related to porphyry mineralisation and are also a possible and valid target.

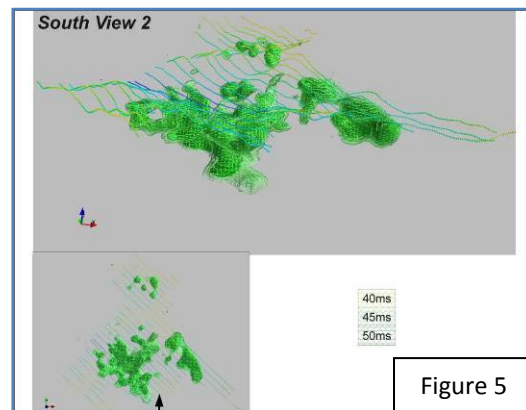


Figure 5

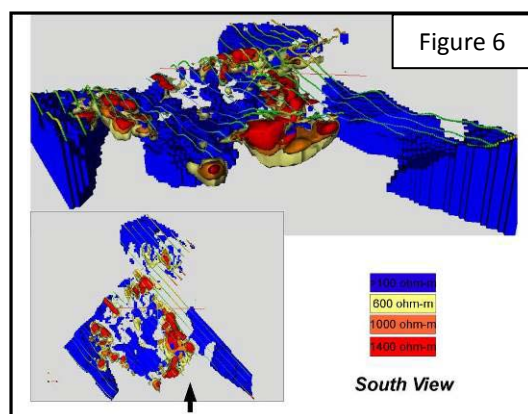


Figure 6

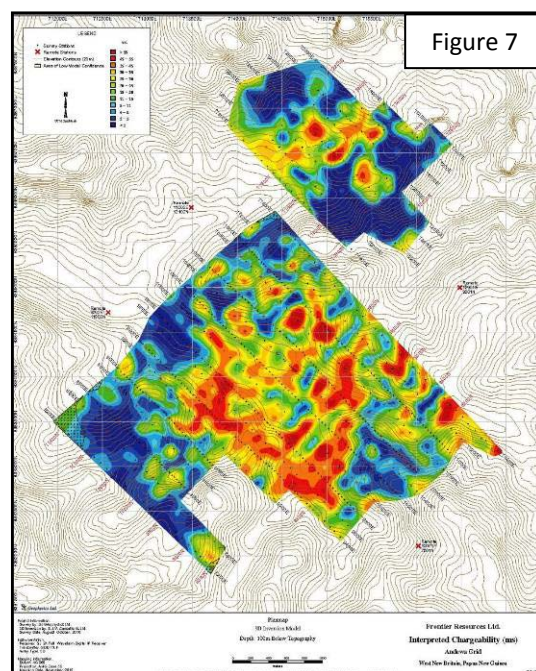


Figure 7

Brief descriptions and a list of figures associated with Andewa are detailed below.

Figure 2 is an SRTM topographic image of the Andewa EL.

Figure 3 is a photo of the Andewa Valley looking from the Ekhos Prospect down the structural zone and across the CCZ to the WNW. Komsen is near the shadow line in the central background sector (of the photo).

Figure 4 shows the Andewa Prospect locations, Komsen structures, drainage geochemistry and the initially proposed 3D -IP grid. The eastern side of the grid has now been filled in (use this grid as a scale and reference shape when evaluating the IP plans and sections).

Figure 5 is a pseudo 3D representation of the chargeability anomalies viewed from the south, showing the IP and soil geochemistry section lines and topography, plus a plan view of the chargeability in the lower left corner.

Figure 6 shows resistivity anomalies viewed from the south, showing the section lines and topography. Also a plan view of the resistivity in the lower left corner.

Figures 7, 8 and 9 are plan views or depth slices below surface showing the IP response over the gridded area at 100m depth, 200m depth and 400m depth, respectively. These plans illustrate clearly that there are local but limited IP chargeability responses that reach ground surface, with an increasing response with depth in intensity and cohesion, to a widespread and exceptionally strong response at 400m depth and greater.

Interpreted resistivity plans at 100m, 200m and 400m depth below topography are included as figures 10, 11 and 12. The donut shaped anomaly is obvious.

Figures 13, 14 and 15 are grid east-west cross sections (9800E, 10200E and 11200E) of interpreted resistivity (on top) and chargeability (on the bottom) illustrating clearly how the chargeability expands at depth. Note that the upper right part of the figure shows the location of the section line relative to the grid.

Figure 16 is secondary copper mineralised porphyry rock from Andewa at real (~75%) scale.

Two additional very large chargeability anomalies were also defined.

The Ekhos Chargeability Anomaly is located in the south of the 2 eastern most grid lines reported herein (figures 7-9 and 13-15).

- It is more than 1,000m long and is between 200m and 400m wide as presently known on the edge of the grid. This anomaly will likely be enlarged by the geophysical lines recently completed that are now being processed.
- It is a very intense near surface anomaly that extends to depth and it appears to be associated with the Ekhos gold – copper Prospect and sub-region.
- The Ekhos Prospect is currently known as a 700m x 100m ridge and spur gold-in-soil anomaly and associated substantial base metal anomaly.
- North and South Zones have gold occurring in quartz veins to 10m width in hand trench. The best assay results were 9m at 1.96 g/t gold, 15m at 1.83 g/t gold and 2m of 5.19 g/t gold, with significant associated copper. Rock

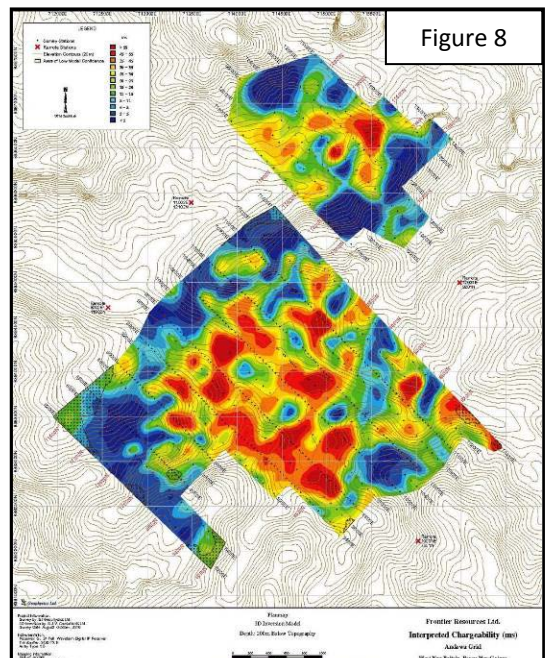


Figure 8

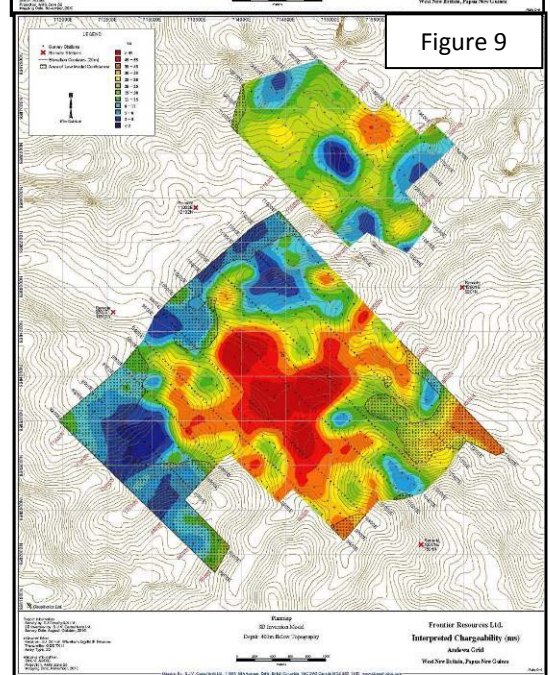


Figure 9

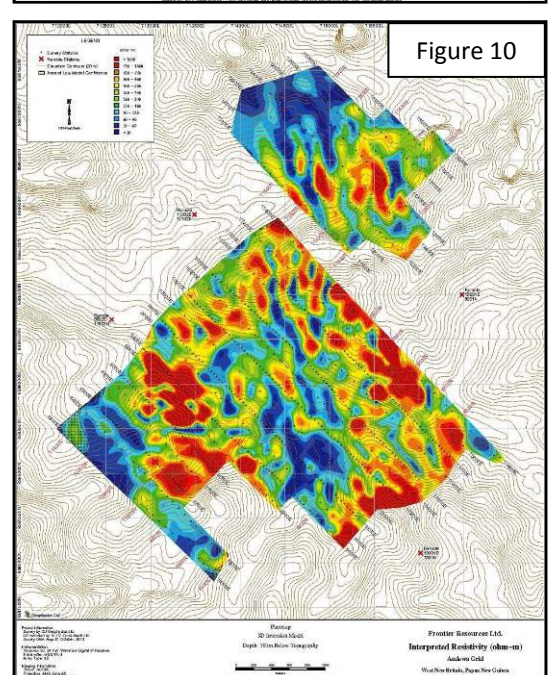


Figure 10

outcrop assays are to 7.60 g/t gold and 20.5 g/t gold, respectively and mineralisation on surface is open to the NW.

The Ber Chargeability Anomaly is located in the northern sector of the grid.

- It is more than 1,500m long, is between 200m and 800m wide.
- The anomaly also appears to be fault bounded.
- Little work has been completed in this region, but it has anomalous gold in drainages and silicified structures interpreted from the Aster data.

Chairman Peter McNeil. M.Sc. commented:

The three dimensional Induced Polarisation geophysical survey has enhanced the economic potential for precious and base metals at the Andewa Project by an order of magnitude. Frontier's goal was to demonstrate the possible presence a major gold and copper mineralised system to produce new and systematically defined, high quality drilling targets in multiple prospect areas. I believe that the Company has been highly successful with this major geophysical and geochemical exploration program and anticipate an extensive drilling campaign will commence after the wet season in the second quarter of 2011, to test these incredibly impressive IP anomalies.

The central block of the Core chargeability Zone at Andewa is 1,200m long and about 500m wide at >50ms chargeability. This is a very intense chargeability zone reflecting very abundant sulphides. There are also 2 other intense chargeability blocks that are 400m x 400m and 300 x 400m, respectively. At 400m depth the Core chargeability Zone covers an area in excess of 2 sq km or >200 hectares. This is a huge and intense chargeability anomaly that extends to greater than 800m total depth. The Consulting geophysicist supervising the geophysical survey commented regarding the Core Zone "I have never seen anything like it"

Frontier has previously drilled gold mineralisation at the Komsen Prospect from surface to a maximum depth of 320m below surface in a limited program, proving excellent lateral and vertical continuity in the structure with results to 7.9m of 10.01g/t gold.

In addition, there are two additional very strong to intense chargeability anomalies located in the northern and south-eastern sectors of the grid (as processed to date). The first is called the Ber chargeability Anomaly and it is more than 1,500m long and is between 200m and 800m wide. The area has anomalous gold in drainage and the anomaly also appears to be fault bounded. The Ekhos chargeability Anomaly is located in the south of the 2 eastern most grid lines reported herein and is more than 1,000m long and is between 200m and 400m wide, as presently known on the edge of the grid. This anomaly will almost undoubtedly become longer and wider when the recently completed geophysical lines are processed.

It is useful and appropriate to compare the size of the Andewa chargeability anomalies with those recently reported on New Britain Island by competitors on their flagship projects. Coppermoly Ltd and Vangold Resources Ltd used the same geophysical consultants as Frontier, so the data is directly comparable. The main chargeability anomaly at Andewa has an intensity of much greater than 30ms at all depths and is >50ms in the high intensity centre of the Core Zone. The Nakru-1 chargeability anomaly

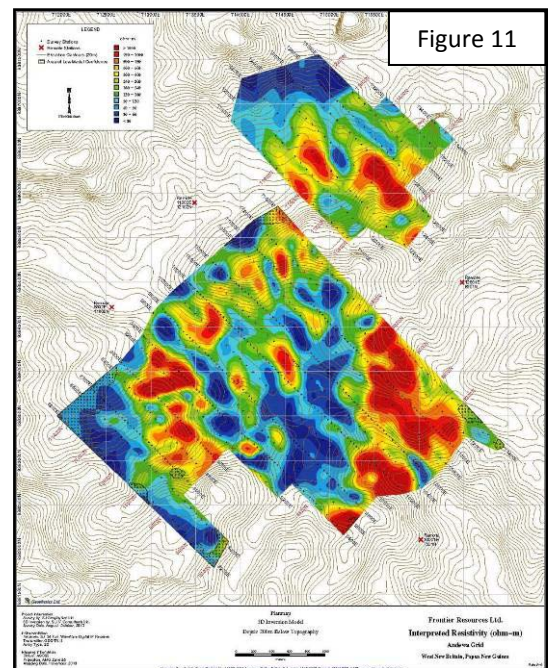


Figure 11

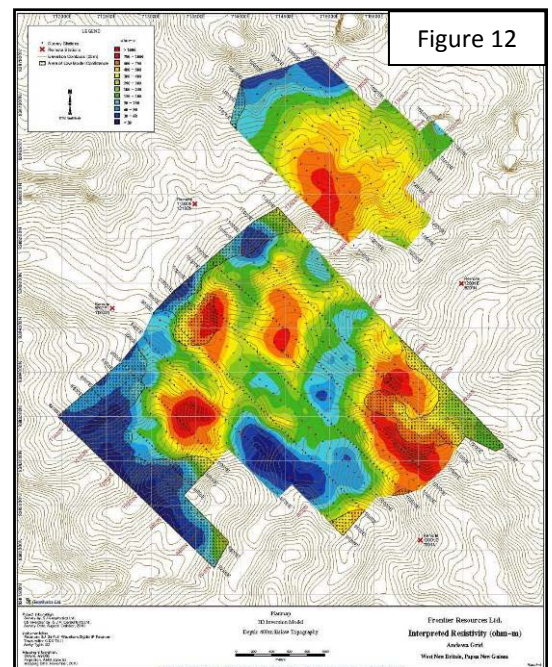


Figure 12

For personal use only

located 150km to the ESE is also >30ms from surface and extends to the north-east at depth with dimensions of 600m by 200m, covering 10 hectares. Nakru 1 has only a few small zones that are >50ms in intensity. Of interest of course is that the first drill hole in the centre of the Nakru 1 anomaly recently intersected 213.75m of 0.92% copper and 0.33g/t gold, including significant higher grade zones. Vangold's Mt Penck project is located 65 km to the east, is the closest mineral project to Andewa and a very good analogy; their chargeability anomaly at 200m depth covers an area of 18 hectares but only at >25ms.

As a comparison, the Core chargeability Zone alone at Andewa is about 20 times the size of the main anomaly at Nakru 1 and >10 times the size of the main anomaly at Mt Penck, where Vangold have recently commenced a deep drilling campaign.

The Andewa 3D-IP has demonstrated the largest and most compelling chargeability anomalies that I have ever seen and we still have 1/3 of the grid area to be processed, evaluated and reported. It

is not possible to speculate on the possibly associated gold or copper grades, as this can only be determined by drilling, but Management believe the Andewa Gold Project has excellent potential to yield potentially economic gold and copper mineralisation with additional systematic exploration and the

Company will focus on achieving this outcome.

Some basic geological and geophysical discussion is warranted regarding what these geophysical results mean.

- The strong chargeability anomalies are in themselves valid and compelling drilling targets, as are their shoulders or the transition zones between high and low intensity, for both precious and base metal deposits.
- A "sulphide system" means disseminated or wide-spread, electrically conductive sulphide minerals are present. It is not known what type or quantity of sulphides are causing the chargeability response, but it is almost certainly pyrite and/or base metal sulphides (not graphite).
- The strength of the chargeability anomaly is directly proportional to the total volume and type of sulphides that are present (i.e. generally more sulphides = stronger chargeability anomaly).
- Pyrite is iron sulphide. It is the most common form of sulphide, but has no economic value. Base metal sulphides primarily of copper (+/- zinc and lead) and precious metals (gold and silver) are economically significant and are the exploration targets at Andewa.

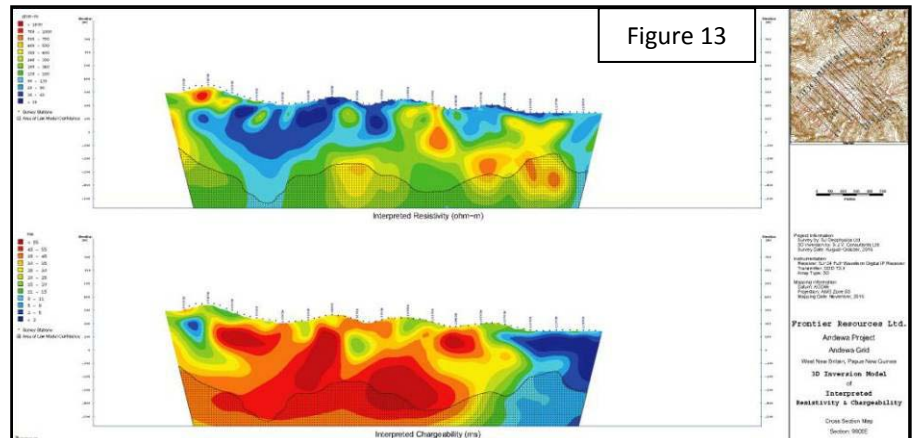


Figure 13

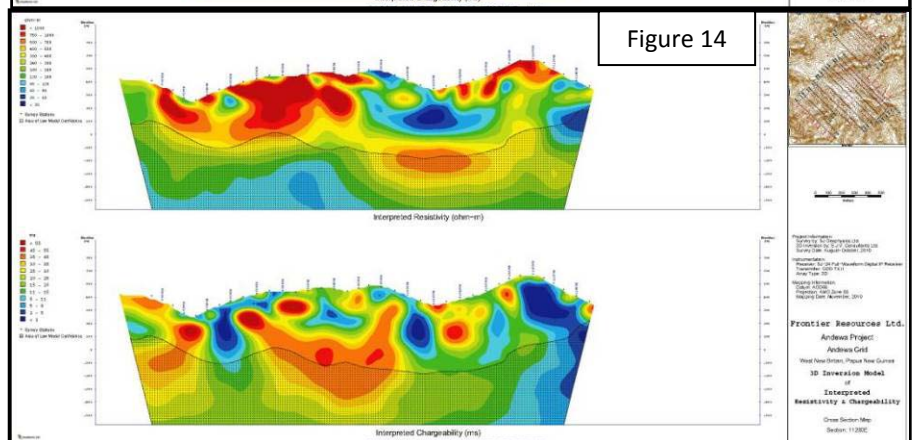


Figure 14

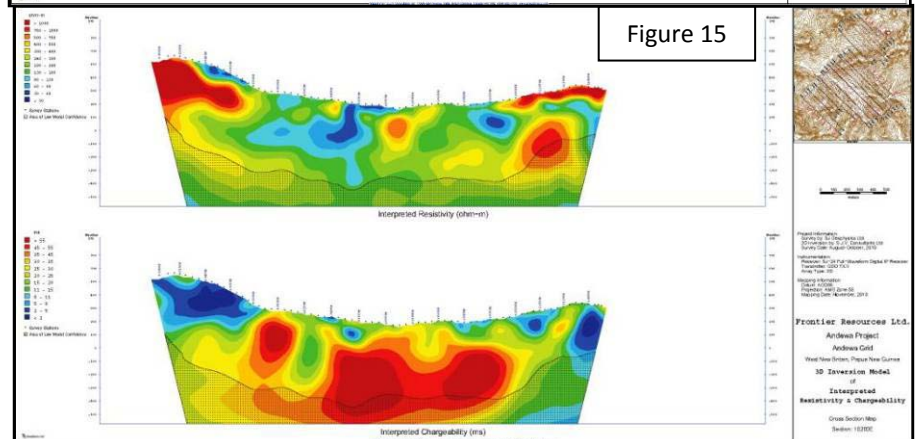


Figure 15

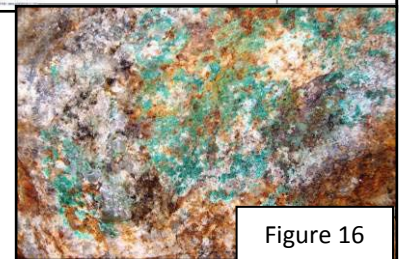


Figure 16

For personal use only

- The definition of a 'World Class Deposit' varies but is now generally considered to be about 4 million contained ounces of gold or equivalent.
- Gold and base metals have various three dimensional spatial relationships with pyrite in different types of mineral deposits in these environments, depending on the precise physical and chemical conditions under which they formed.
- Higher grade zones of copper mineralisation sometimes contains lower total sulphides (less pyrite) and thus actually have lower chargeability. As such, economically significant base metal sulphide zones could also occur adjacent to (not within) the highest chargeability anomalies. This means that the shoulders of the chargeability anomalies are also valid drilling targets.
- It is possible that copper and gold grades of the sulphide mineralisation will increase with depth and that the chargeability anomaly at or near surface represents structurally related mineralisation peripheral to major porphyry copper - gold mineralisation.

OK TEDI MINING LTD JOINT VENTURE

In May 2010 Frontier and OTML established a Joint Venture that relates to 3 ELs and 2 EL Applications in PNG. OTML have the option to earn 58% of EL 1595 by spending US\$12 million within 6 years. Frontier is carried from completion of earn-in to the completion of a Bankable Feasibility Study, with pro-rata (carried) repayments from 50% of its future metal sales. Under certain circumstances, OTML can purchase up to 80.1% equity in the project.

Bulago Joint Venture

A large and very detailed aeromagnetic and radiometric geophysical survey has been completed by OTML Ltd (figure 17) at the Bulago Joint Venture (EL 1595), located near the Strickland River, in Southern Highlands Province in the NW of Papua New Guinea.

Interpretation of the survey data will be undertaken by specialist geophysical consultants in conjunction with OTML and should become available in 2 to 3 months. The geophysical data will then be integrated with the existing geological and geochemical information to discriminate and rank targets for follow up exploration, potentially including drilling.

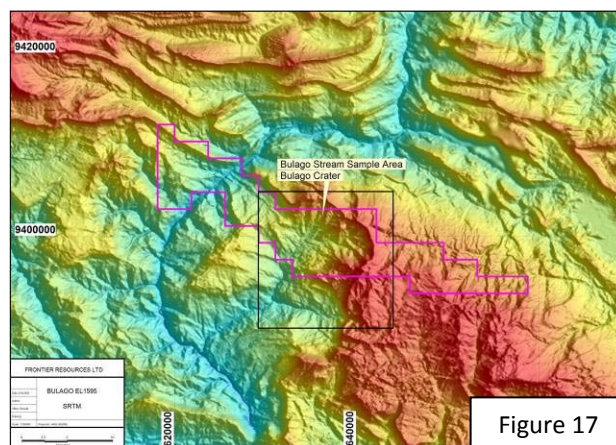


Figure 17

The geophysical survey covers the Exploration License (EL 1595) at a 50m sensor height on 50m traverse spacing, with 500m spaced tie lines, for approximately 2,848 line kilometres total (figure 18). In addition to the digital aeromagnetic and radiometric data, images will be produced of Total Magnetic Intensity - TMI (and derivative enhanced TMI), radiometrics and the digital elevation model for evaluation.

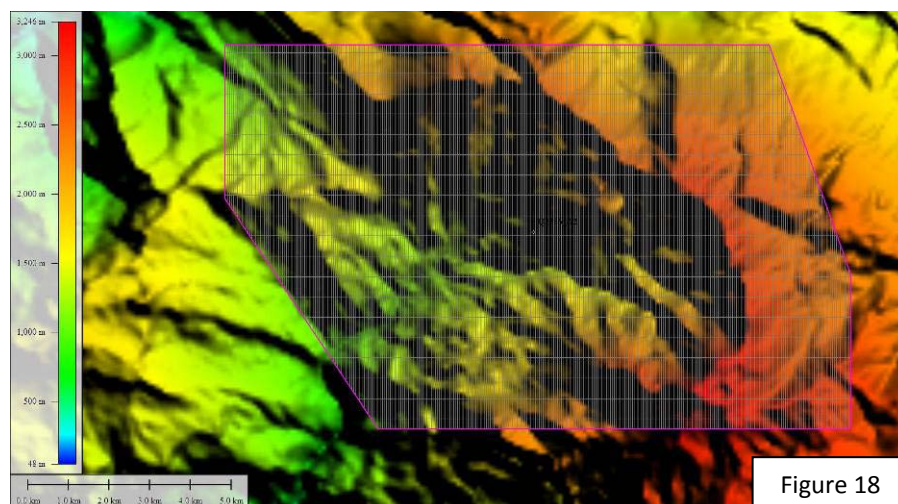


Figure 18

Trench channel sample assay results have previously included 27m of 66.8 g/t gold, 7.5m of 67.0 g/t gold, 18m of 40.3 g/t gold and 1.5m of 5.59 g/t gold+ 2,555 g/t silver+ 2.17% copper+ 3.16% zinc.

TASMANIAN EXPLORATION

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 (figure 19). 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 20 shows the merged historic aeromagnetic data as a first vertical derivative image. The Stormont ERA is in the central west (9 km²), then is the excluded Moina Fluorite deposit RL (2 km²) and then the Narrawa RL (3km²), within the large Cethana EL (109km²). 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.

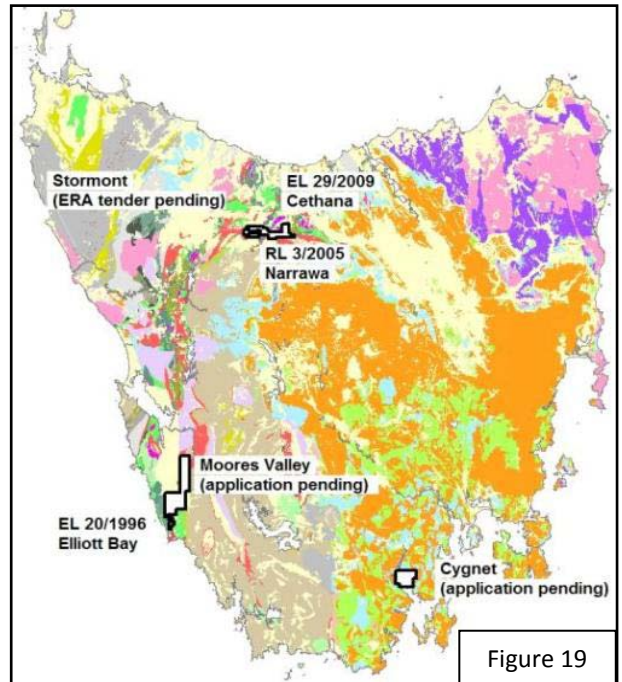


Figure 19

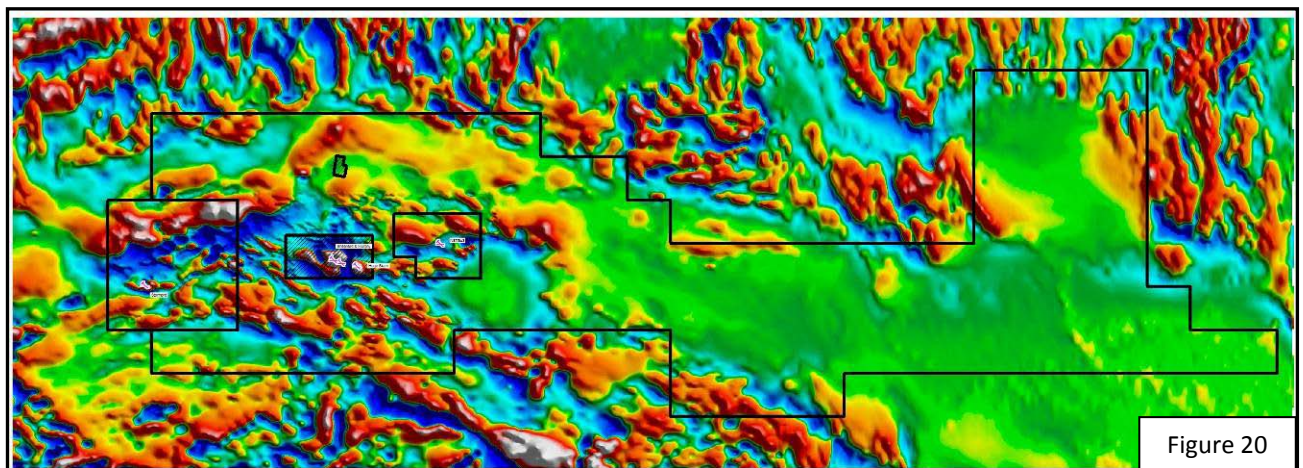


Figure 20

The initial focus is soil sampling on a 100m x 50m grid for gold (figure 21). 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% WO₃, within 10.5m grading 0.228% WO₃. 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% WO₃, within 16m grading 0.178% 0.228% WO₃, 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.

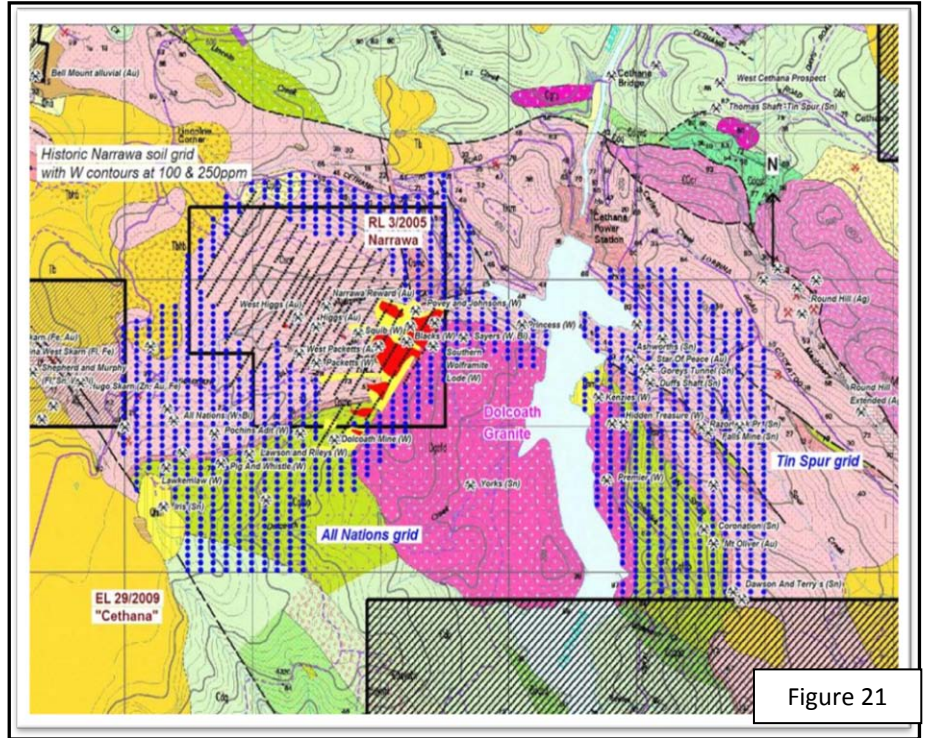


Figure 21

Figure 21 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 remains untested. The 2011 drill program will target this area.

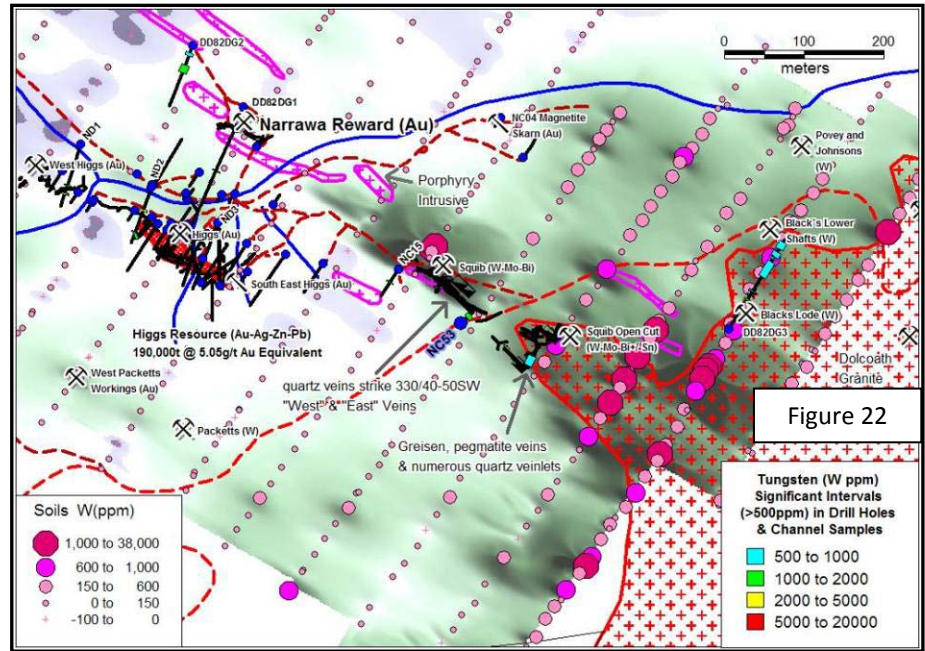


Figure 22

Six historic holes drilled for gold also returned potentially economic grades of tungsten, peaking at 0.5m of 1.26% WO₃ with 0.12% molybdenum. Five channel samples also returned anomalous tungsten with up to 1.5m grading 0.70% WO₃ and also 3m grading 1.17 g/t gold + 0.1% WO₃. The historic Squib Mine produced 34.5 tonnes of tungsten. Dump samples have analysed up to 5% WO₃ and a sample from a lode in a drive returned 3.19% WO₃. 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 (WO₃) 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 not included 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 9km² 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.

CORPORATE

During the December quarter, 37,225,487 options were converted at \$0.045 totalling A\$1,675,146. A total of 40,428,116 options were converted at \$0.045 cents during the 12 month period.

Shareholder approval was granted for the allotment of 2,500,000 unlisted Directors options at \$0.09 and 2,500,000 unlisted Directors options at \$0.10 with a 1 year vesting period.

Frontier currently have 244,535,238 shares on issue.

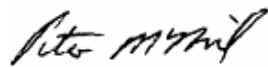
The following ASX announcements were released during the December 2010 quarter.

11/1/2011	Major aeromagnetic - radiometric geophysical survey completed by Ok Tedi Mining Ltd at the Bulago Joint Venture
10/1/11	Allotment of Securities
3/1/11	Exploration, drilling and enhanced tenement portfolio, the Tasmanian Frontier
30/12/10	Allotment of Securities
29/12/10	Trading Policy
20/12/10	Amended Appendix 3B
15/12/10	Allotment of Securities
14/12/10	Change of Directors Interest
13/12/10	Allotment of Securities

2/12/10	Change of Directors Interest
30/11/10	Expiry of Unlisted Directors Options
26/11/10	Three very large, voluminous and intense 3D-induced polarity chargeability anomalies demonstrate the presence of major sulphide systems from surface to >800m deep, Andewa gold and copper Project, Papua New Guinea
25/11/10	Allotment of Securities
25/11/10	AGM Presentation to Shareholders
25/11/10	Results of AGM
25/11/10	Chairman's Address
22/11/10	3D-IP geophysical program completed at Andewa gold Project in Papua New Guinea
12/11/10	Allotment of Securities
9/11/10	Bulago Aeromagnetic Program Initiated
4/11/10	Change of Directors Interest
29/10/10	Quarterly Report for the period ending 30th September 2010
29/10/10	Letter to Option Holders
28/10/10	Leonard Schultz Aeromagnetic Program Completed
25/10/10	Allotment of Securities
25/10/10	Change of Directors Interest
22/10/10	Notice of Annual General Meeting
11/10/10	Change of Directors Interest
4/10/10	High-grade mineralisation demonstrated by rock outcrop assays at the Wasi Prospect, (gold to 180 g/t, silver to 1,090 g/t, copper to 4.12% and molybdenum to 872 ppm), and additional gold defined by hand trenches at the Kru Prospect (28m of 1.43 g/t gold and 4m of 8.01 g/t gold)
3/10/10	2010 Annual Report

Please visit our website at www.frontierresources.com.au for additional information relating to the Company and its projects and/or feel free to contact me.

FRONTIER RESOURCES LTD



P.A. McNeil, M.Sc.

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 km²) and 3 Exploration Licence Applications (approx. 2,212km²) in PNG. 3 ELs and 2ELAs are subject to Joint Ventures with Ok Tedi Mining Ltd.
 - Frontier also has 2 Exploration Licences + 1 Retention Licence (123 km²), plus several EL Applications 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-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 recently completed a very large (~25 km²), grid-based geophysical, geochemical and geological exploration program that demonstrated a major mineralised system with compelling new drilling targets in multiple prospect areas.

- For personal use only
- 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 km².
 - 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.

Appendix 5B

Mining exploration entity quarterly report

Introduced 1/7/96. Origin: Appendix 8. Amended 1/7/97, 1/7/98, 30/9/2001.

Name of entity

FRONTIER RESOURCES LIMITED

ACN

095 684 389

Quarter ended ("current quarter")

December 2010

Consolidated statement of cash flows

Cash flows related to operating activities	Current quarter \$A'000	Year to date 6 Months \$A'000
1.1 Receipts from product sales and related debtors	15	16
1.2 Payments for (a) exploration and evaluation	(461)	(884)
(b) development		
(c) production		
(d) administration	(109)	(228)
1.3 Dividends received		
1.4 Interest and other items of a similar nature received		
1.5 Interest and other costs of finance paid		
1.6 Income taxes paid		
1.7 Other Expenditure reimbursable by others		
Net Operating Cash Flows	(555)	(1,096)
Cash flows related to investing activities		
1.8 Payment for purchases of:		
(a)prospects		
(b)equity investments		
(c) other fixed assets		
1.9 Proceeds from sale of:		
(a)prospects		
(b)equity investments		
(c)other fixed assets		
1.10 Loans to other entities		
1.11 Loans repaid by other entities		
1.12 Other (provide details if material)		60
Net investing cash flows		60
1.13 Total operating and investing cash flows (carried forward)	(555)	(1,036)

+ See chapter 19 for defined terms.

For personal use only

Appendix 5B
Mining exploration entity quarterly report

1.13	Total operating and investing cash flows (brought forward)	(555)	(1,036)
Cash flows related to financing activities			
1.14	Proceeds from issues of shares, options, etc. net of costs	1,674	1,771
1.15	Proceeds from sale of forfeited shares		
1.16	Proceeds from borrowings		
1.17	Repayment of borrowings		
1.18	Dividends paid		
1.19	Other (provide details if material)		
	Net financing cash flows	1,674	1,771
Net increase (decrease) in cash held			
		1,119	735
1.20	Cash at beginning of quarter/year to date	813	1,197
1.21	Exchange rate adjustments to item 1.20		
1.22	Cash at end of quarter	1,932	1,932

Payments to directors of the entity and associates of the directors
Payments to related entities of the entity and associates of the related entities

		Current quarter \$A'000
1.23	Aggregate amount of payments to the parties included in item 1.2	84
1.24	Aggregate amount of loans to the parties included in item 1.10	

1.25 Explanation necessary for an understanding of the transactions

Consulting Fees and Director Fees

Non-cash financing and investing activities

2.1 Details of financing and investing transactions which have had a material effect on consolidated assets and liabilities but did not involve cash flows

2.2 Details of outlays made by other entities to establish or increase their share in projects in which the reporting entity has an interest

+ See chapter 19 for defined terms.

For personal use only

Financing facilities available

Add notes as necessary for an understanding of the position.

	Amount available \$A'000	Amount used \$A'000
3.1 Loan facilities		
3.2 Credit standby arrangements		

Estimated cash outflows for next quarter

	\$A'000
4.1 Exploration and evaluation	350
4.2 Development	
4.3 Production	
4.4 Administration	100
Total	450

Reconciliation of cash

Reconciliation of cash at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts is as follows.	Current quarter \$A'000	Previous quarter \$A'000
5.1 Cash on hand and at bank	38	62
5.2 Deposits at call	1,894	751
5.3 Bank overdraft		
5.4 Other (provide details)		
Total: cash at end of quarter (item 1.22)	1,932	813

Changes in interests in mining tenements

	Tenement reference	Nature of interest (note (2))	Interest at beginning of quarter	Interest at end of quarter
6.1	Interests in mining tenements relinquished, reduced or lapsed			
6.2	Interests in mining tenements acquired or increased			

+ See chapter 19 for defined terms.

For personal use only

Appendix 5B
Mining exploration entity quarterly report

Issued and quoted securities at end of current quarter

Description includes rate of interest and any redemption or conversion rights together with prices and dates.

	Total number	Number quoted	Issue price per security (see note 3) (cents)	Amount paid up per security (see note 3) (cents)
7.1 Preference +securities <i>(description)</i>	Nil	Nil		
7.2 Changes during quarter (a) Increases through issues (b) Decreases through returns of capital, buy-backs, redemptions				
7.3 +Ordinary securities	244,535,238	244,535,238		
7.4 Changes during quarter (a) Increases through issues (b) Decreases through returns of capital, buy-backs	37,225,487	37,225,487	4.5 cents	4.5 cents
7.5 +Convertible debt securities <i>(description)</i>	Nil	Nil		
7.6 Changes during quarter (a) Increases through issues (b) Decreases through securities matured, converted				
7.7 Options <i>(description and conversion factor)</i>			<i>Exercise price</i>	<i>Expiry date</i>
	180,000		14 cents	20-Oct-11
	2,500,000		4.0 cents	31-Dec-12
	2,500,000		5.0 cents	31-Dec-12
	3,200,000		4.0 cents	19-Oct-13
	950,000		3.0 cents	21-Jan-14
	4,500,000		11.0 cents	30-Dec-14
	2,500,000		9.0 cents	31-Dec-12
	2,500,000		10.0 cents	31-Dec-12
7.8 Issued during quarter	4,500,000		11.0 cents	30-Dec-14
	2,500,000		9.0 cents	31-Dec-12
	2,500,000		10.0 cents	31-Dec-12

+ See chapter 19 for defined terms.

For personal use only

7.9	Exercised during quarter	37,225,487		4.5 cents	3-Dec-10
7.10	Expired during quarter	1,788,441 270,000 3,200,000 100,000		4.5 cents 16 cents 20 cents 15 cents	3-Dec-10 19-Oct-10 30-Nov-10 10-Dec-10
7.11	Debentures <i>(totals only)</i>	Nil	Nil		
7.12	Unsecured notes <i>(totals only)</i>	Nil	Nil		

Compliance statement

- 1 This statement has been prepared under accounting policies which comply with accounting standards as defined in the Corporations Act or other standards acceptable to ASX (see note 4).
- 2 This statement does give a true and fair view of the matters disclosed.



Sign here: Date: 31 January 2011
(Director/Company secretary)

Print name: Jay Stephenson

Notes

- 1 The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity wanting to disclose additional information is encouraged to do so, in a note or notes attached to this report.
- 2 The "Nature of interest" (items 6.1 and 6.2) includes options in respect of interests in mining tenements acquired, exercised or lapsed during the reporting period. If the entity is involved in a joint venture agreement and there are conditions precedent which will change its percentage interest in a mining tenement, it should disclose the change of percentage interest and conditions precedent in the list required for items 6.1 and 6.2.
- 3 **Issued and quoted securities** The issue price and amount paid up is not required in items 7.1 and 7.3 for fully paid securities.
- 4 The definitions in, and provisions of, *AASB 1022: Accounting for Extractive Industries* and *AASB 1026: Statement of Cash Flows* apply to this report.
- 5 **Accounting Standards** ASX will accept, for example, the use of International Accounting Standards for foreign entities. If the standards used do not address a topic, the Australian standard on that topic (if any) must be complied with.

=====

For personal use only