# EL02/1992
# Lisle

# Final Relinquishment Report
# June 2008

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## SUMMARY

EL2/92 Lisle, currently held by Frontier Resources, is due for expiry on the 24th July 2008. This is the Final Relinquishment Report for the tenement. Exploration Licence EL2/92 Lisle has been surrendered in favour of increasing exploration activity on other Tasmanian tenements. Frontier Resources has undertaken investigations of many of the prospects within the exploration licence with limited success.

Summaries of the work done by Frontier/TasGold on the licence area are contained in Annual Reports previously submitted to MRT – see Reid and McDougall (2005), (2006) and (2007). No work was carried out during the twelve months following the 2007 report.

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# 1 INTRODUCTION

EL2/92 Lisle, currently held by Frontier Resources is due for expiry on the 24th July 2008. This report is the Final Relinquishment Report for the tenement.

### 1.1 Location

E.L. 2/92 "Lisle" is located in the north-east of Tasmania, about 30km from Launceston (see Figure 1).

The area is largely State Forest with extensive pine plantations and areas of old and regrowth dry and wet sclerophyll forest. Various wildlife habitat strips and ridge top reserves occur throughout the forest. A number of freehold properties lie within the EL, however these mostly lie outside the prospective areas.

The E.L. is accessed by bitumen road with numerous unsealed mostly forestry roads providing good access to many of the prospective areas.

### 1.2 Tenure

E.L. 2/92 "Lisle" was issued to R.D. & R.J. McNeil on 24 July 1992. On 16/10/92 the title was transferred to MACMIN N.L and in 2001 to Tasmine Pty Ltd that later changed its name to TasEx Resources Ltd. The title has since transferred to TasGold Ltd, a new company listing on the ASX in April 2003.

E.L. 2/92 was roughly bounded by AMG66 Zone55. lines 5443000m N and 5431000m N to the north and south respectively and A.M.G. lines 523000m E and 529000m E to the west and east respectively.

Thirty-six sub-blocks were relinquished in March 1998 with thirty-six sub-blocks being retained. Twenty four additional sub-blocks were relinquished in April 2002, retaining only the northern 1/3 of the license.

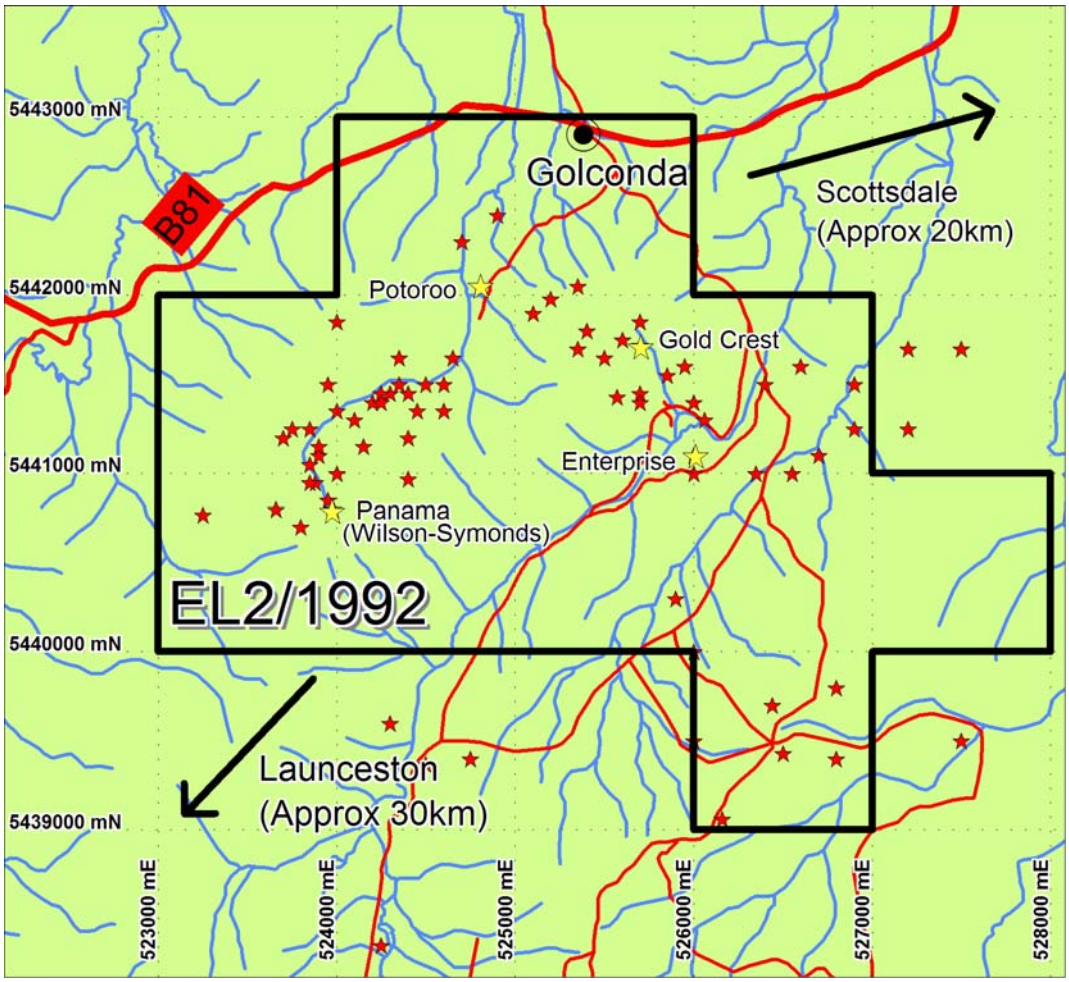


Figure 1: EL 2/92 location.

# 2 GEOLOGY

## 2.1 Regional Geology (From Reid and McDougall, 2005)

The NE Tasmanian terrain consists of autochthonous Ordovician to Early Devonian quartz-wacke to pelitic turbidites known as the Mathinna Supergroup, which are intruded by Devonian granitoid batholiths. These older units are overlain by post Carboniferous cover sequences. The NE Tasmanian terrain may be similar to the Melbournian Zone of Central Victoria (Powell and Baillie, 1992, Foster et al, 1998).

The Mathinna Supergroup has been multiply folded and according to Reed (2001) is divided by an unconformity recognised on structural grounds. The westernmost Tippogore Group is affected by pre-Tabberabberan thrusting and recumbent folding (D1). This group is considered to be older than the Panama Group, which is not affected by this event. The earliest deformation within the EL appears to be the first Tabberabberan Orogeny event (regionally D2) and is evidenced by upright and asymmetrical folding with NNW-SSE trending hinge lines and weak ENE fold vergence. Thus the EL's Mathinna Supergroup units probably belong to the Silurian-Devonian Panama Group.

A later Devonian Tabberabberan Orogeny related trend within the Mathinna Supergroup has a postulated WSW fold vergence, with associated high angle reverse faults and NNW-SSE trending hinge lines (regional D3). The Devonian deformations are characterised by coincident fold trends and as such strike slip structures in an ENE orientation are possibly activated in both deformations to accommodate differential shortening.

Deformation of the Mathinna Supergroup is thought to occur prior to intrusion of the Scottsdale Batholith (one of three NNW to N oriented composite granitoid batholiths intruded into the Mathinna beds during the Devonian). The Mathinna Supergroup is locally hornfelsed in contact metamorphic aureoles around the granitoid plutons.

Unconformably overlying the Mathinna Supergroup and Devonian granites are post orogenic sediments of the Permo-Triassic Parmeener Supergroup. These are intruded by large sills of Jurassic dolerite. These cover rocks have been largely eroded with remnants forming topographic highs such as Mt Arthur.

Tertiary basalt flows have significantly changed drainage patterns in parts of the NE district. Basalts have filled palaeo-topographic lows resulting in topographic inversion with erosion resistant basalts now forming low ridges. Significant Tertiary sediments are located to the north towards the Bass Basin. Quaternary deposits include alluvial and colluvial valley fill, which obscures bedrock in a large percentage of the EL.

### 2.2 Local Geology (From Reid and McDougall, 2005)

The local geology is dominated by ridges of hornfelsed Mathinna Beds, intruded by numerous granodioritic and dioritic dykes which readily weather to form basins. Valleys and ridge slopes are covered by Quaternary talus and alluvial deposits, obscuring most of the recessive bedrock geology.

The Mathinna beds generally consist of a monotonous sequence of graded, quartz-wacke turbidites with lesser siltstones and black shales. Where observed in outcrop they appear to form NNW trending folds with several fold closures apparent on the EL. A weak NNW striking slaty cleavage is observed in some outcrops. The Mathinna beds are locally hornfelsed with chlorite after cordierite spotting common within hundreds of metres of contacts with the Devonian intrusives.

Granitic to dioritic intrusives are generally deeply weathered and rarely outcrop. Rare outcrop and core intersections indicate the intrusives are complex and heterogenous with numerous inclusions of hornfelsed Mathinna beds and dark diorite. Textures vary from equigranular, feldspar-biotite-quartz granodiorites to feldspar-hornblende-biotite porphyritic diorites. Intrusions occur as dykes and small cupolas or porphyritic apophyses, possibly off a larger buried body. The largest known intrusive of this type occurs in the Lisle Valley, immediately south of the EL, and measures approximately 4km by 4 km. Thin quartz-feldspar aplitic dykes and vein dykes are sparsely apparent, particularly at Enterprise and Potoroo.

Roach (1992) analysed various granodiorites (16 samples) from Lisle, Golconda, Panama and the western margin of the Scottsdale Batholith, known as the Diddleum Pluton. In terms of Rb and Sr the Lisle granodiorites are the least fractionated of the

Tasmanian Devonian Granitoids. Fitzpatrick (2004) and Roach (1992) both report a clear distinction between the rocks of the Scottsdale Batholith and granodiorite from the Lisle area. The former also reports likely shallower emplacement for the Enterprise (/Lisle) granodiorites in the range of up to 4km compared to a 5 to 9km range for the Scottsdale Batholith, although they may be linked along a buried granite ridge.

There is a marked variability of the magnetic susceptibility of the granodiorites. This is probably a reflection of varying geochemistry between the complex intrusives, but may also represent areas of magnetite destruction associated with hydrothermal alteration.

The Panama-Golconda goldfield produced about 2000 oz of primary gold at a grade of around 12-14g/t Au from narrow veins hosted in magnetite series granodiorites and Mathinna Beds at the granodiorite-host rock interface. Mineralisation and alteration varies between host rocks. Within the Mathinna Supergroup mineralisation occurs as thin (0.1 to 1.5m) quartz veins with strike lengths of up to several hundred metres. Veins appear to be hosted in late brittle faults. Vein attitudes vary between prospects but are generally steeply dipping. Some reports identify stratabound gold mineralisation in silicified sandstone beds (Reid, 1926; Fulton, 2001), although these have not yet been observed within the EL.

Mineralisation and alteration within the intrusives is associated with intense sericite-silica alteration and variable disseminated pyrite and arsenopyrite. Quartz stockworks and sheeted veins are intimately associated with alteration zones within the intrusives. Vein orientations and styles again appear to vary between prospects. Minor ankerite, siderite and sulphides are associated with quartz veining and as pervasive and disseminated selvedge alteration. Sulphides include dominantly pyrite and arsenopyrite with lesser galena, sphalerite, molybdenite and chalcopyrite.

# 3 ORE DEPOSIT MODELS **(From Reid and McDougall, 2005)**

The majority of NE Tasmania gold deposits are typical slate belt style, mesothermal gold deposits similar to the Victorian goldfields. The best known and single largest reef (including Victoria) is the Tasmania Reef at Beaconsfield which contains >2.91 Mt @ 19.8 g/t Au. The Tasmania Reef consists of a quartz + carbonate + sulphide filled fracture that is transgressive to the host sediments and is fault controlled. The reef varies in width from less than 1 m to approximately 5 m and has a strike length of 350 to 400 m. The reef remains open at depth.

Unlike most of the NE Tasmanian gold deposits, the Lisle-Golconda reef deposits appear to be related to the reduced granodiorites of the Scottsdale batholith. There is an obvious spatial relationship between late stage intrusives and gold mineralisation. Gold is hosted in quartz-sulphide veins and disseminations within intrusives and structurally controlled veins within the contact aureole. Sulphides include arsenopyrite and pyrite with lesser chalcopyrite, bismuthinite, stibnite and molybdenite. Geochemically, the mineralisation has a Au, Ag, Bi and Mo association.

Fitzpatrick (2004) characterised the mineralisation in the Enterprise / Potoroo area, finding close similarities to intrusion – related gold deposits (a hybrid displaying features associated with tungsten – tin deposits, porphyry copper-gold and orogenic lode gold), an under recognised and economically important class of gold deposits. These deposits include sheeted veins, quartz stock-works and bulk mine-able disseminated gold deposits spatially and geochemically associated with reduced intrusives. Examples of these styles of deposits are known in Alaska, the Czech Republic, Spain, Kazakhstan, Bolivia and Australia. The Kidston (Queensland) and Timbarra (New South Wales) deposits are Australian examples.

World class Alaskan deposits of this style include Pogo and Fort Knox. Pogo is reported to host more than 9.0 million (M) tonnes(t) at 17.8 g/t Au for more than 5.0 million(M) ounces(oz) contained gold. Mineralisation occurs in three or more tabular, gently dipping quartz bodies associated with early biotite and later quartz – sericite stockwork and sericite – dolomite alteration. The quartz bodies occur 1.5 km south of a Cretaceous batholith and are hosted primarily in gneiss. Fort Knox occurs as a structurally controlled stockwork and shear quartz veins in a granodiorite pluton. It is reported to host 158.3 Mt at 0.83 g/t Au for more than 4.0 million oz contained gold.

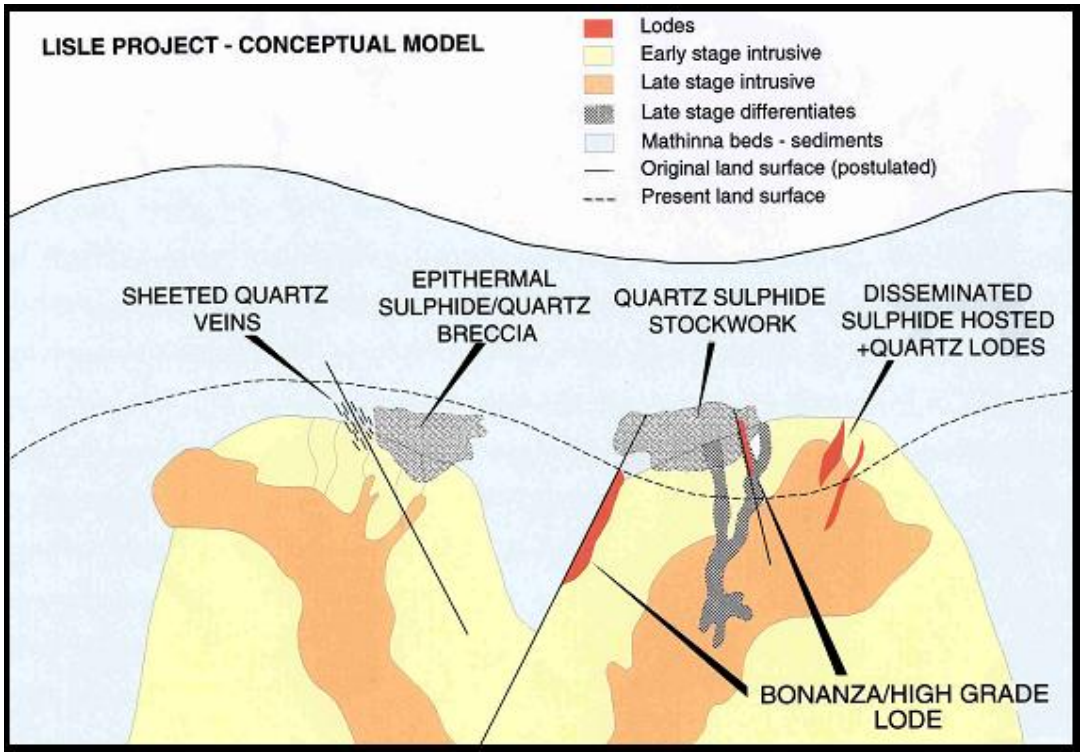


Figure 2. Lisle Project Conceptual Model.

# 4 DISCUSSION

During the exploration conducted by Frontier at EL 2/92, activity was concentrated on the Panama, Potoroo and Gold Crest Prospects.

## 4.1 Panama

Early miners in the Panama Valley were strongly encouraged by the abundant alluvial gold, but found a single high grade source hard to locate. Bottrill (1994) suggests that much of the gold from the Panama goldfield was won from quartz veins hosted in the granodiorite, which were presumably readily extracted from the soft weathered near surface parts of the granodiorite. These were accessed via a series of shafts through the eluvium and followed a course of auriferous specimens.

Frontier Resources' exploration at Panama was directed toward increasing the resource potential at the Wilson-Symonds workings. These workings in the south western upper end of the Panama Valley are the most extensive hard rock workings at Panama and the best preserved. The workings host significant gold in quartz-arsenopyrite veins and previous rock chip sampling of these lodes within the drives by Frontier returned numerous high gold analyses to 76.5g/t and previous drilling (PVD001/002) had successfully intersected these veins. Two further diamond drill holes (PVD003 and PVD004; Figure 3) were targeted along strike from known near surface intersections of high-grade narrow quartz-arsenopyrite veins in drill hole PVD001. The new holes were veined; however gold results were generally disappointing except for near surface veins previously unidentified by drilling.

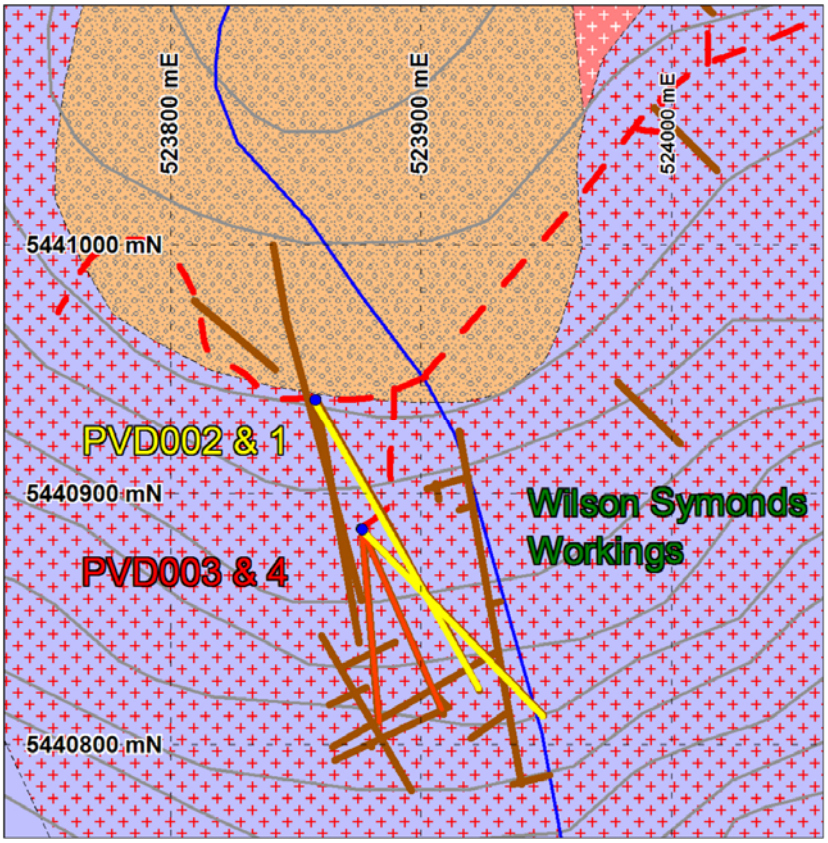


Figure 3: Workings and Drill Holes at Wilson-Symonds Workings, Panama

Ground magnetics has proven to be a relevant survey tool for magnetic high and lineament targeting at both Potoroo and Panama, considering the results obtained and that Roach (1992) details 2 granodiorite types at Lisle; magnetic (Pyrrhotite bearing from TasGold/Frontier experience) and nonmagnetic. Further the existing aerial survey data is too widely spaced for prospect scale interpretation.

A ground magnetics survey was previously conducted over the upper portion of the Panama Valley with diagrams outlining Frontiers' interpretation shown in Figs 4 and 5.

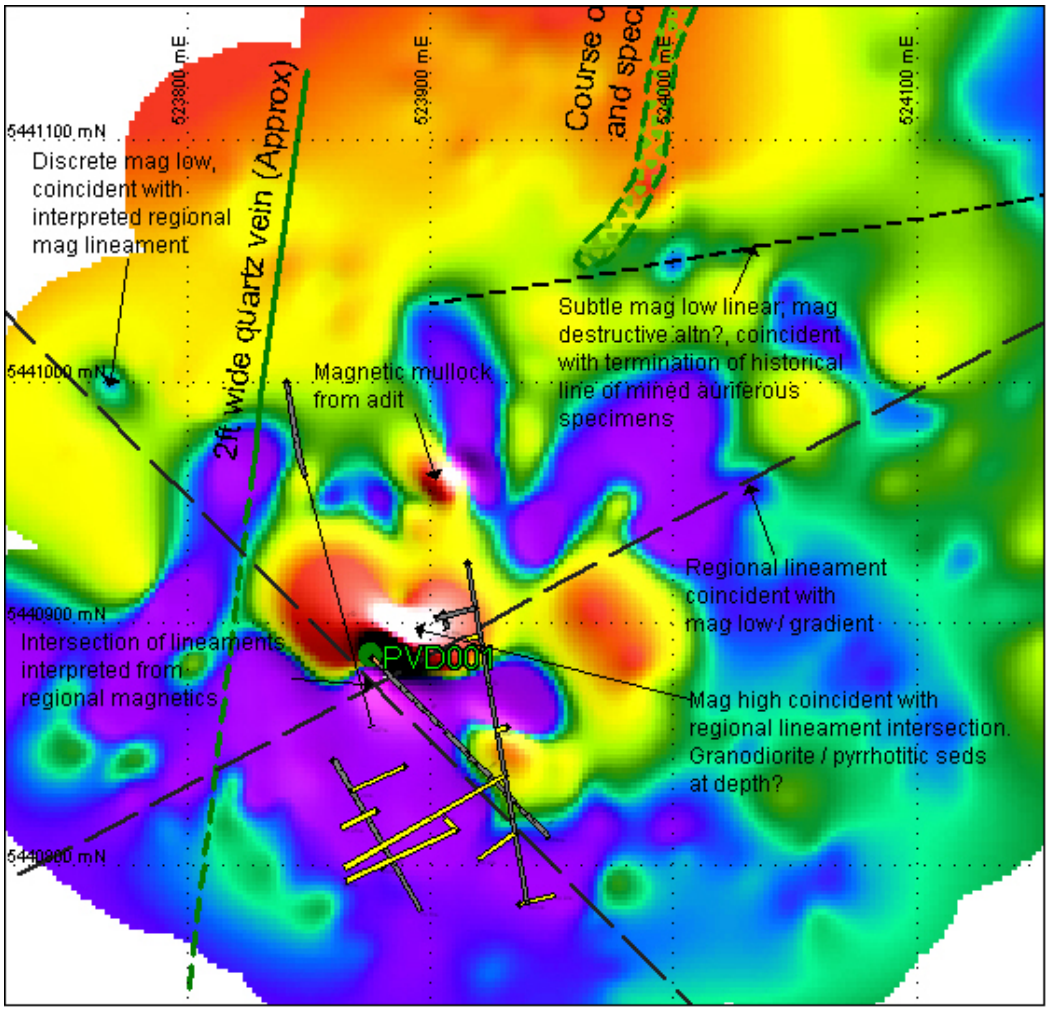


Figure 4: Panama Ground Magnetics and Interpretation

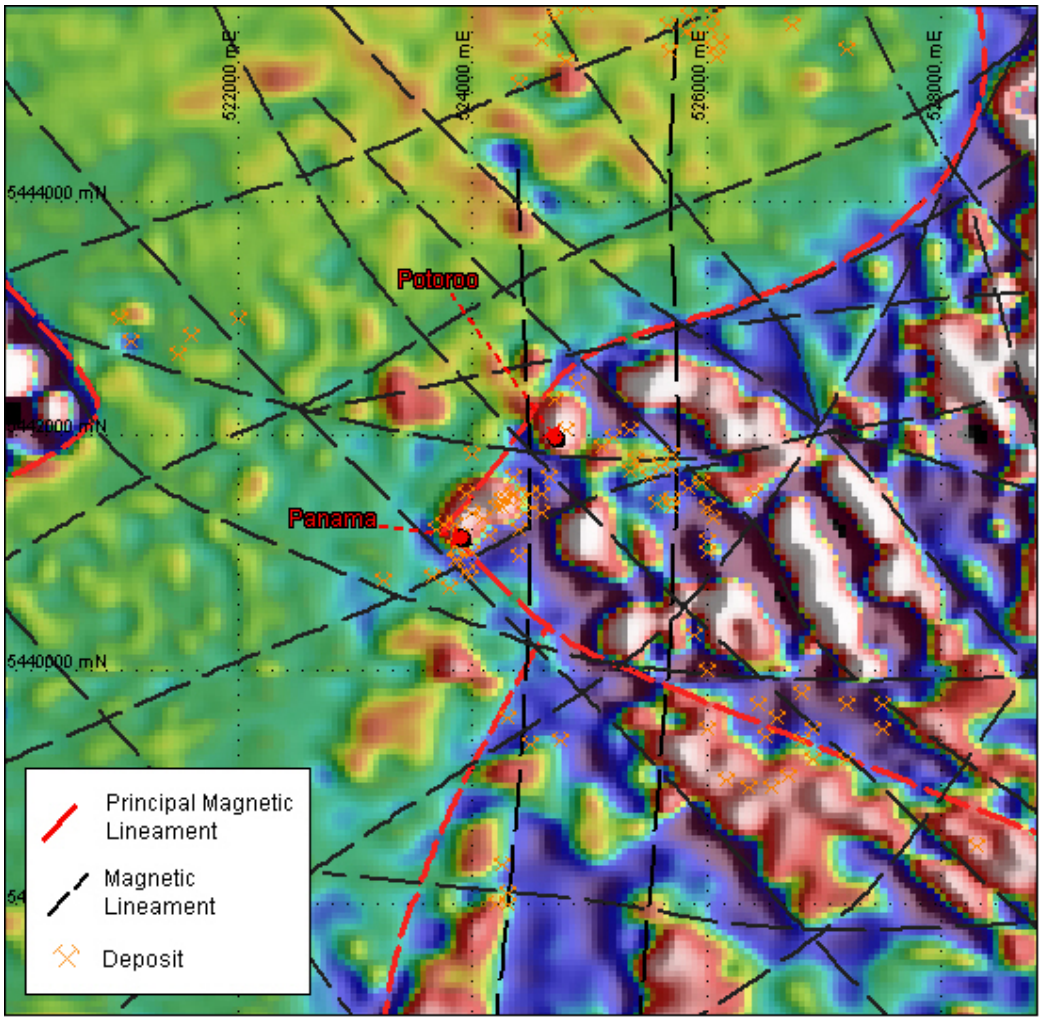


Figure 5: Panama Area Regional Magnetics and Interpretation

### 4.2 Potoroo

At Potoroo fault and lithological relationships from limited trench and ground data, combined with regional magnetic lineament interpretation (Figure 5) supports a $220^0$ / moderate to steep west dip orientation for a quartz-arsenopyrite veined fault on the western intrusive margin, which lies at magnetic lineament intersections at an ENE orientated major terrain boundary. This orientation is comparable with Panama Lode orientation of 230/70W. Given this comparison and since the existing 150m long line of $135^0$ directed drill holes are all collared in granite, potential exists to drill test parallel to and north of the current holes, aiming to intersect the faulted granodiorite contact. This action would drill an untested magnetic high located immediately north west of most of the current drilling (Figure 6).

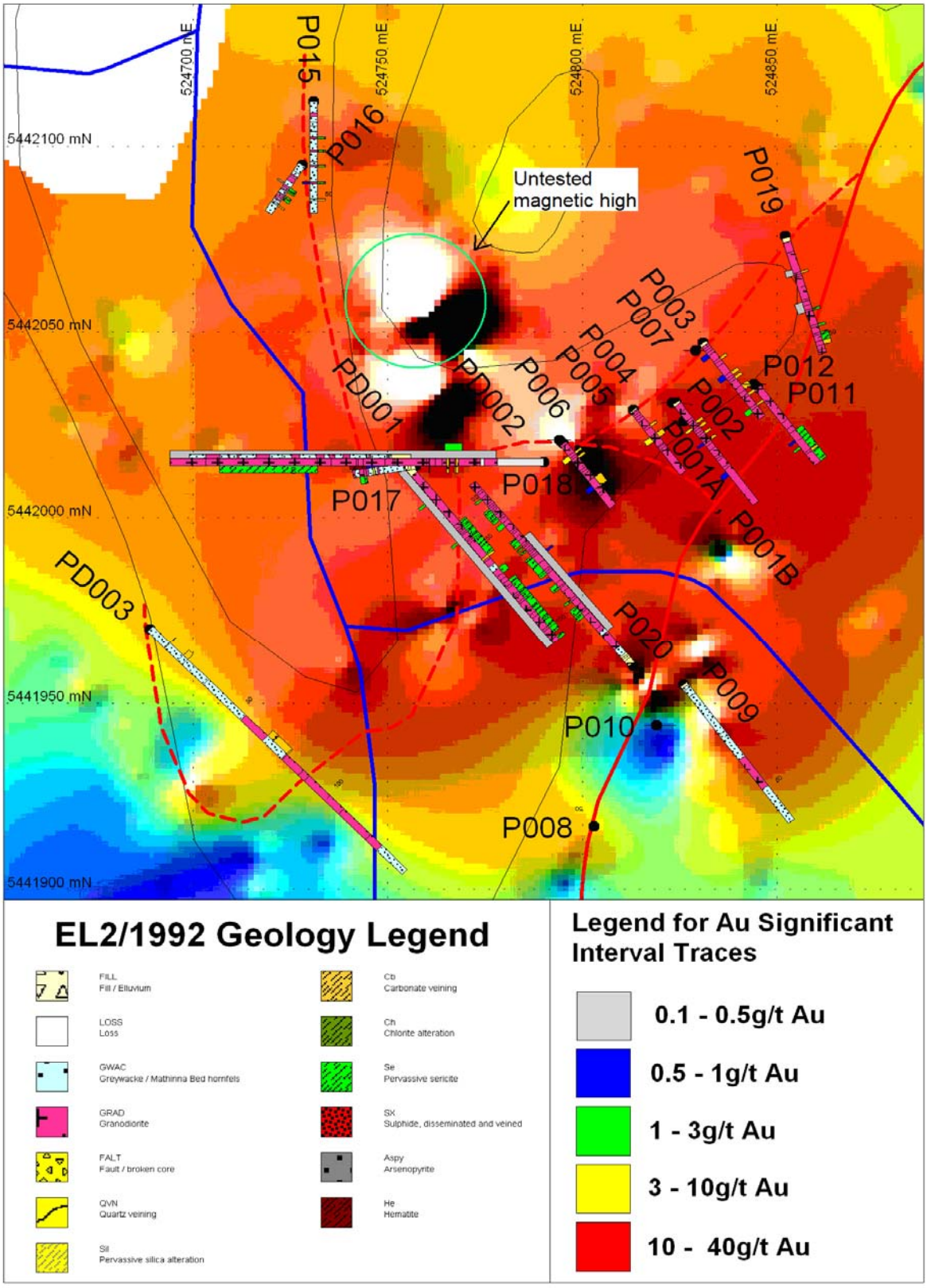


Figure 6: Potoroo Ground Magnetics Survey and Drill Hole Geology

### 4.2 Gold Crest

Historical B-Horizon soil sampling was captured for the Gold Crest area, this survey having been completed by previous tenement holder Macmin in 1995. Two distinct anomalies were located in this survey on parallel trends running NNE (Figure 7) –sub-parallel with workings at Enterprise and the Big Gold Crest prospect. Unfortunately the soil data appears to be unduly influenced by man made disturbance including mullock heaps and probable bulldozer activity on the power line track that runs through the centre of the granite at Gold Crest. Targeting the main arsenic in soil anomaly (GCD003) was unsuccessful, possibly due to these man made artefacts in the data.

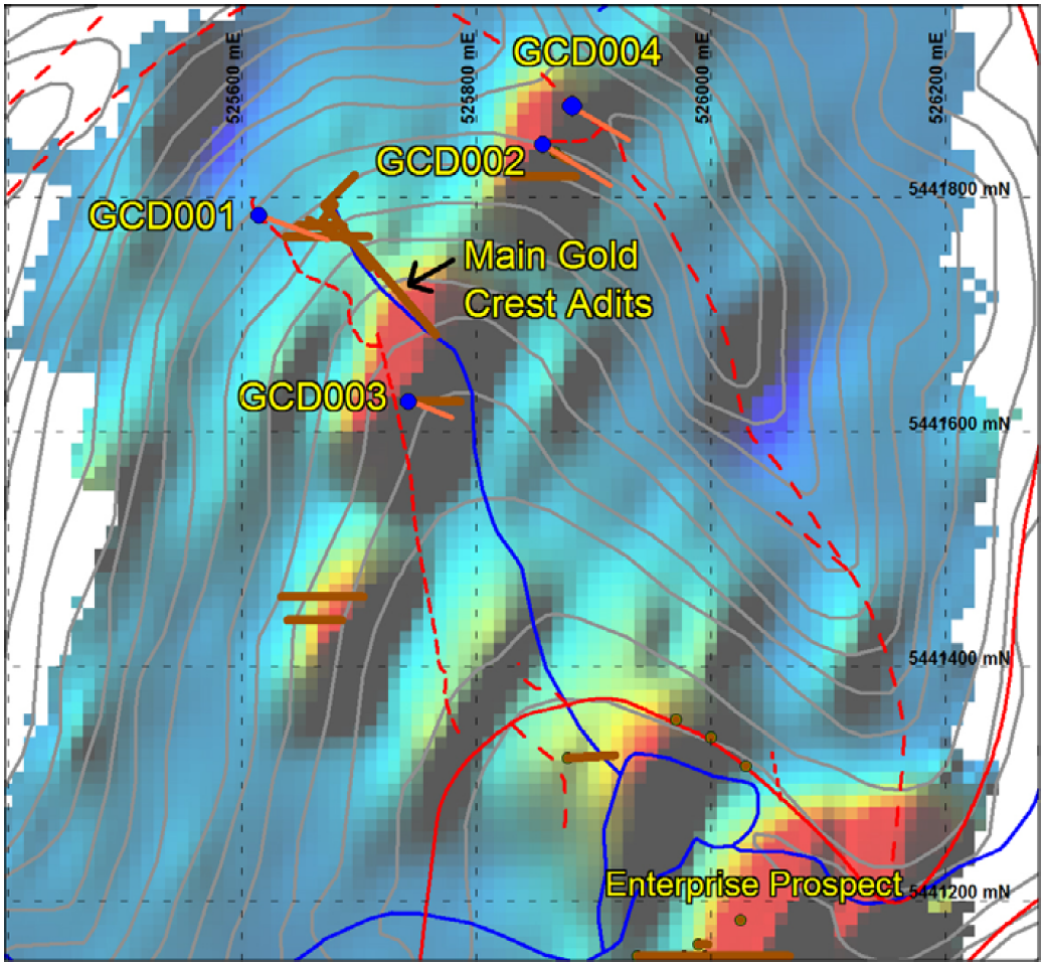


Figure 7: Goldcrest Drill Holes over Gridded Gold in B-Horizon Soils

GCD001 was targeted below the termination of the lower Gold Crest adit at the head of the valley. The target is the promising quartz lode that is accessed via three adits driven to the NW. The adits intersect the NNE trending, NW approx. 50$^{o}$ dipping quartz vein that varies between 10 and 60cm. The upper adit, which accesses the lode, had a stoped area that was able to be located at surface to help with targeting. A vein was reported to be present at the end of the adit and previous work had identified arsenopyrite bearing vein material. Sampling within the workings returned values to

24.75g/t gold from arsenopyrite – pyrite - quartz veins and 0.53g/t gold from granodiorite wall rock

The strike of the lode is approximately equivalent to that of the nearby Enterprise lodes, where Frontier's previous drilling returned results to 4m of approximately 12g/t gold. Historically the drive on the mineralisation in the lower Gold Crest adit returned a peak assay of 3oz/tonne gold with 6% copper. Other historic sampling has returned grades varying from 3.5 to 66g/t gold and 3.5 to 112g/t silver.

The ideal drill pad to the north-west of the workings would have required significant track work and MRT discouraged disturbance in this area. Drill hole GCD001 was eventually targeted from the west directly beneath the high-grade rock chip samples in the lower Gold Crest adit. Targeting the Gold Crest quartz veins with drill hole GCD 001 was unsuccessful, returning minor zones of weakly gold anomalous (to 0.2g/t gold from 43 to 47m) silica-sulphide mineralisation. This demonstrated the complexity of the lodes.

Drill hole GCD002 targeted anomalous gold in soils and trenching, located approx. 150m NE of Gold Crest on the margin of a magnetic low zone that delineates the granodiorite. The targeted soil anomaly ranges from 0.115 to 0.190g/t gold and 340 to 700ppm Arsenic, whilst trenching returned 0.42g/t gold over 16m in granodiorite plus 18m of 0.117g/t gold within the adjacent Mathinna Beds.

Hole GCD002 tested beneath historic drill hole LSD 004, from a 25m step back providing an intersection in fresh mineralisation. Frontier's improved drilling techniques developed through experience in the area resulted in good core recovery. A broad 91m low-grade zone grading 0.29g/t gold (from 4m) was intersected in GCD002 and included 16m grading 0.93g/t gold (from 16m) plus 0.45m grading 5.67g/t gold (from 85.7m).

GCD003 tested the middle of a 600m long zone of NE trending anomalous gold (to 1.21g/t) in soils, that appeared to be sub parallel to the Enterprise vein trend. The target being drilled was also a potential SW strike extension of the LSD004 area mineralization based on the soil trend. GCD003 returned no anomalous gold results.
The anomalism at GCD002 was followed up by drill hole GCD004, located 40m NE along the strike of the geochemical anomaly, directly targeting a gold anomalous zone in historical Trench 7 which assayed 40m of 0.18g/t gold. The entire length of hole GCD004 comprised hornfelsed Mathinna Beds, although a similar style alteration to that in GCD002 was encountered. Significant intervals include a wide zone of semi-pervasive silica-biotite-pyrite veining from 54 to 73m and quartz-arsenopyrite veining from 21.4 to 21.7m and from 92.2 to 93.6m. Assay results were disappointing.

Orientated core from GCD002 and GCD004 showed the presence of near flat lying thrust fault hosted and structurally related moderately north-west dipping quartz, biotite, sulphide and silica-sericite altered mineralized structures. These observations indicate potential for mineralised ore shoots plunging shallowly to the north-east in the LSD04 area. Not all the workings at Gold Crest have been drill tested, however mineralisation seems to be limited to the granodiorite-Mathinna contacts. Drilling re-orientated perpendicular to this contact is possibly warranted.

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