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## **EL 19/2006 – Innes Peak**

### **Annual Report to 22<sup>nd</sup> August 2007.**

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## Summary

The Annual Report for EL 19/2006 provides details of Frontier's exploration progress on the SMRV tenements during the year to 22<sup>nd</sup> August, 2007. No field work was undertaken due to Frontier's company commitments in Papua New Guinea. Joint venture opportunities were unsuccessfully sought during the year; efforts are ongoing. Regardless, a significant exploration program is planned for the coming 2007/8 field season, which will be funded from the current rights issue.

Significant work, including drilling, geological mapping, soil sampling and a 38.4 line km 3D IP survey, has been undertaken by Frontier on nearby EL's in recent years, resulting in a strong understanding of the area's stratigraphy and mineralisation. Evaluation of this data has yielded improved targeting vectors to base metal-rich VHMS mineralisation in the overall SMRV area.

Work on all the SMRV prospects is planned to commence in late November/early December. Field work and up to 500m of drilling is anticipated on the Innes Peak area in conjunction with activities planned for EL 20/1996 (Elliot Bay), EL 21/1999 at V34 (Aldebaran) and in the NE Osmund area on 20/2006.

## **Introduction**

The following report details Frontier Resources Ltd.'s exploration within EL 19/2006 during the tenure year to 22<sup>nd</sup> August 2007. No field work was undertaken by Frontier Resources Ltd. within EL 19/2006 during the 2006/7 field season, the work being postponed while a significant exploration commitment was underway in Papua New Guinea. The latter absorbed considerable funds prior to capital raising, just undertaken. Planning for exploration in the 2007/2008 field season is at an advanced stage with approval for work to be sought shortly.

The company has already developed an insightful understanding of the geology and mineralisation of the area, resulting in a technically sound work program that's likely to successfully delineate gold and base metal resources in the area.

Key target deposit styles for the EL19/2006 are high grade polymetallic sulfide VHMS deposits, Henty-style high grade gold deposits and other Hybrid VHMS types. Evaluation of prospectivity has been largely based upon GIS data collation and amalgamation with existing geochemical and geophysical data, stream sediment surveying, soil surveying and sound geological and structural mapping.

Proposed work program elements include data review, ground truth reconnaissance of the D'Aguilar South Prospect, gridding and C-horizon soil sampling at Hales West Prospect, and a Au-focused stream sediment survey program in the south of the tenement. Highly prospective areas delineated will be followed up with further surveys in year 2 or drill tested if warranted.

## **Location, Access and Land Use**

EL 19/2006 is located in the remote southwest of Tasmania (see Figure 1) around 40 kilometres west of Strathgordon and ~70 kilometres south of Strahan. Access to the area is difficult as infrastructure is minimal to non-existent. The southwest of Tasmania is exposed to the roaring forties and is often windy and wet even in mid-summer.

Much of the southwest of Tasmania is listed as a World Heritage Area and the land tenure is classified as National Park. However the strip of land between Elliott Bay in the south and the southern shore of Macquarie Harbour to the north has been deliberately excluded from the World Heritage Area on the basis of its prospectivity (and lesser wilderness values).

The Innes Peak area remains classified as Conservation Area and as such is open to mineral exploration. The Tasmanian Government proclaimed the prospective rocks south of Macquarie Harbour to be within the Sorell Peninsula Prospectivity Zone, a recognition of the mineral potential of the area. Under this act any change in the status of the land within the zone requires the approval of both houses of the Tasmanian parliament with any affected party entitled to compensation (this does not cover any decisions of the Federal government).

A rough 4WD track (Low Rocky Pt Track) runs from the southern end of Birches Inlet (south-eastern corner of Macquarie Harbour) to the unmanned lighthouse at Low

Rocky Point. The track was initially constructed by Exploration companies in the 1950's and 1960's but has been rarely used since. Barging of heavy equipment across Macquarie Harbour to access the track has occurred successfully in the past. Previous exploration has seen bombardiers, excavators and drilling rigs (L38's) unloaded here and driven down to the Elliott Bay area. 4WD bike and motorbike enthusiasts occasionally use the track.

The alternative access is by air. The Moores Valley airstrip, located 10 kilometres north of Mt Osmund and immediately south of EL19/2006 was constructed in the 1950's and is serviceable by light fixed wing aircraft.

Previous exploration campaigns have accessed the area by helicopter and light plane either from Strathgordon or Strahan. Large equipment has been transported down the coast by boat or barge and airlifted from the deck whilst the boat/barge is sheltered in the mouth of the Mainwaring River or Cowrie Beach. TasGold's 2004 exploration campaign was mobilised in this manner.

TasGold's (now Frontier Resources Ltd.) January 2005 mobilisation efficiently utilised the Hobart Ports barge "Kalundra" with some 45tonnes of gear loaded in Hobart and boated to the Lewis River mouth. The barge doors were lowered onto an outcropping point, allowing unloading of tracked vehicles which included an 7.5t excavator and two 3.5t rubber tracked crawler dumpers. Other equipment and supplies were sling loaded from the river mouth to the Wart Hill drill site and camp. Demobilisation followed the reverse procedure late in the 2005/6 field season.

A semi-permanent camp is located just south of Wart Hill. The Camp was first constructed by Geopeko Ltd. and is currently managed by Mineral Resources Tasmania. This facility was re-established by TasGold Ltd after it was vandalised and burned in 2003. No Frontier property remains on site at present.

Frontier's 2007/8 field season will be based from rudimentary/temporary camps located near the Hales River and D'Aguilar target areas. Movement of camp equipment to the D'Aguilar and Hales River West sites requires helicopter support.

## **Tenure**

EL 21/1999, Wanderer River, which originally contained a northern block similar to that now known as EL 19/2006, Innes Peak, was granted to Exploration & Management Consultants Pty Ltd and McNeil Associates Pty Ltd on 5<sup>th</sup> February, 2001, with the exploration licence expiry date being 26th January 2006. TasGold (now Frontier Resources) acquired a 90% interest in this and the adjoining EL 20/96 from Exploration & Management Consultants Pty Ltd and McNeil Associates Pty Ltd. The vendors retain a 10% free carried interest in the tenement to completion of a bankable feasibility study. A partial voluntary relinquishment for EL21/1999 occurred in 2005 and acquisition via the ERA process of Lewis River (EL20/2006) and Innes Peak (EL19/2006) followed. EL19/2006 covers 72 square kilometres in 2 non contiguous parts, covering much of the former EL21/1999. The location of the licences is shown in Figure 1. Presently, Frontier Resources is the sole tenement holder in the Elliott Bay Region.

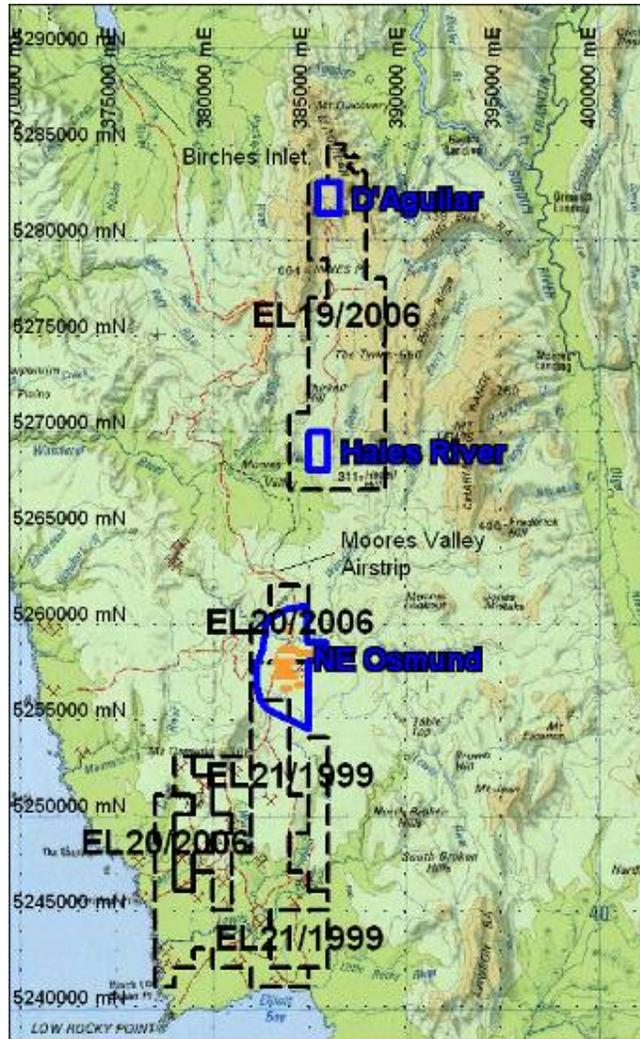


Figure 1: Location of Frontier licence areas – EL 19/2006, Innes Peak; EL 20/2006 Lewis River; EL 21/1999 Wanderer River; EL 20/1996 Elliot Bay

## Environmental Concerns

Frontier has undertaken environment surveys on an annual basis over adjacent EL's 20/1996 and 21/1999 since 2003/2004 to comply with the requirements of the MEWG (Mineral Exploration Working Group). Orange Bellied Parrot and Wedge Tailed Eagle surveys investigating areas of planned exploration activity have been conducted by independent consultants prior to commencing work each field season. An Aboriginal heritage survey by independent consultants was also undertaken in late 2004, investigating the Lewis River landing and route to the Wart Hill camp.

Most recently, an Orange Bellied Parrot and Wedge Tailed Eagle was conducted from 22/11/2005 to 25/11/2006. As with past surveys, no parrots were sited and whilst eagles were seen, no evidence of nests has been observed. Frontier completely rehabilitated drill sites and access tracks in the Wart Hill area at the end of the 2006 field season.

All equipment (including quad bikes) are washed down prior to mobilisation to minimise the threat of phytophthora infection. All activities are undertaken within the guidelines outlined in Mineral Resources Tasmania's Mineral Exploration Code of Practice.

## **Exploration History**

Australasian Minerals completed a Turair survey and reconnaissance sampling in 1973, however, most of the previous exploration was carried out by Union Oil Development Corporation (Union), and Geopeko Limited (Geopeko), between 1975 and 1981 on EL 9/74.

Union completed grid based soil and I.P. surveys over the southern two thirds of the Innes Peak area, an airborne E.M. survey over the southern third of the area, and reconnaissance sampling elsewhere during 1975. This work identified several anomalous Pb, Zn, and Cu anomalous horizons within the volcanic sequence, which appeared to be more or less continuous over strike lengths of 1 to 5 kilometres. Numerous other isolated I.P., EM., and geochemical anomalies were defined during this period.

Union withdrew from Australia in 1975. The project was joint ventured with Geopeko and they completed one field season work in 1977 and a few weeks work in 1981. Geopeko (1977) collected 953 stream sediment samples and assayed them for Cu, Pb, Zn, Mn, Ba, Ag and Fe, defining several significant anomalous drainages and prospects. They then confirmed the existence of geochemically anomalous bed-rock horizons utilizing auger holes (C-horizon samples) and briefly reviewed several of the prospects. At the conclusion of their program, Geopeko recommended numerous prospects for follow-up evaluation. In 1981, they flew a Dighem E.M. survey and completed semi-detailed ground exploration over two prospects. Extensive auger drilling on one prospect within the volcanics suggested the presence of two pyritic horizons with anomalous base metals.

In addition, Union completed 31 kilometres of gridding and constructed an access track from Birch's Inlet on Macquarie Harbour. Geopeko also completed extensive geological traversing, collected 736 rocks for "closer study", submitted 40 rocks for petrographic examination and completed ~16,000 metres of gridding with an unspecified amount of magnetic, VLF-EM and IP traversing.

During the period 1992-1999 Macmin and Partners conducted a comprehensive program of panned concentrate gold sampling, soil, rock chip and float sampling, geological mapping and drilling.

The 1993 pan concentrate sampling program totaling 35 samples concentrated on 31 square kilometers of the central section of the Thirkell Hill tenement. Details of the work and location of the anomalies are found in the Annual Report to 25th September 1993 (McNeil, 1993). Further pan concentrate sampling in 1994 at the D'Aguiar South and Southern Porphyry Contact prospects showed visible gold and assayed up to 95.6 µg's gold.

Two hundred and twenty nine (229) C-horizon soil samples were collected from the

Condor group and anomalies in the central sector of the license with a power auger and assayed for Pb, Zn, Cu, Fe, Ba, Au and As. Several significant base-metal anomalies were defined, in particular the Viking 22 – 9000N area. Full details are presented in McNeil (1993).

Huminex sampling covered the D'Aguilar South and Southern Porphyry Contact Prospects. A total of 892 samples were collected. Full details are found in MacDonald (1994).

A fence of C-horizon wacker samples were collected from the southern end of the Southern Porphyry Contact Huminex anomaly in 1994 (MacDonald, 1995).

A single line of hand augered C-horizon soil samples (21) were collected across the VLF-EM anomaly on the Viking 15 Prospect. Also in 1996, eighty three (83) Huminex and 96 C-horizon samples were collected from D'Aguilar South to fill in and extend the existing soil grid. (Fulton, 1996).

Three grid lines around Viking 11 and Southern Porphyry Contact were soil sampled to enable comparison between conventional soil analysis and the Huminex technique; only a weak correlation was apparent. Details are presented in the Annual Report to 25th September 1996.

Ferruginous pyroclastics and graphitic shales were sampled but no significant assay results were returned from the 6 rock chip/float samples collected in 1993. During the 1994 program rock samples were collected from D'Aguilar South, Southern Porphyry Contact, Hales River East, Viking 11 and Viking 6-21 areas. Further details are found in MacDonald (1994).

Six (6) altered sericite-hematite rock chip samples were collected from the Viking 19 Prospect in 1996. In the same year 38 rock chip samples were collected from D'Aguilar South, 3 of which had detectable gold (Fulton, 1996).

Eight (8) rocks collected in 1994 were thin sectioned with descriptions found in MacDonald (1995). A further eight (8) rock samples were thin sectioned and showed the presence of several alteration styles. Descriptions are presented in Annual Report to 25th September 1996.

The southern and northern anomalies on the Southern Porphyry Contact grid were mapped in 1994. Further mapping was carried out at D'Aguilar South in 1996 and details are in Fulton (1996).

A 6 diamond drill hole fence line (292.5m) was completed in 1995 using a man portable rig. Sulphide and quartz levels were low and only representative core samples were assayed with disappointing results. Detailed logs, assays and cross-section are presented in Grant MacDonald (1995).

Two diamond holes were drilled into a soil anomaly and EM target on the Condor Prospect in 1998. Hole CDH1 reached 231.3m and CDH2, 139.3m. Both intersected a small, weakly mineralised, silicified breccia zone. Detailed logs and assays are presented in the Simmons(1998) and Hall (1999) reports.

## Geology and Mineralisation

The regional geology of the SMRV area (including EL 19/2006) is discussed in TasGold's Annual Report on Exploration for EL20/1996 for 2004 (Callaghan, 2004). The geology, structure, mineralisation and alteration of the Wart Hill area is discussed by Reid (et. al. 2005), with further detail provided in Poltock (1989).

In EL 19/2006 D'aguilar Range Conglomerate, largely of Precambrian derivation, with a minor volcanoclastic component [Sticht Range Beds] overlies Tyennan Basement. The succeeding prospective Cambrian felsic volcanics [Eastern Quartz-phyric Sequence?] are unconformably overlain by polymict conglomerate, sandstone, volcanoclastics and shale [Waterloo Creek Group]. In turn these sequences are overlain by Owen Conglomerate. The Cambrian felsic volcanic equivalents to the Northern Mount Read volcanics, which outcrop over much of the area, lie on the eastern limb of a north-striking, shallowly north plunging syncline overlain by Ordovician siliciclastics in the core of the fold. The western limb of this fold is interpreted to have been down faulted during the Tertiary.

Mapping and interpretation is ongoing with significant advances in the understanding of the geology providing confidence and direction for further exploration. This work to-date suggests that the massive sulphide hosting polymict volcanoclastic unit in the Wart Hill area probably lies at the equivalent of the MRV's (Mount Read Volcanics) CVC – Tyndall Group boundary.

The targeted mineralisation style within EL 19/2006 is VHMS - related base metal mineralisation. Models for mineralisation are developing with geological assessment continuing to unravel the complex nature of mineralisation at the V19 prospect to the south of EL 19/2006. Continuity is now demonstrated between intersections with semi-massive to massive primary ore consistently identified in the same stratigraphic position, in part disproving the debris flow breccia model put forward by previous workers. Note that the debris flow model is still valid locally, but such mineralised intersections are spotty, irregular and generally of low grade.

## **Work Completed**

Frontier did not complete any field work on EL 19/2006 during the 2006/7 field season, where work over past seasons has focused upon extending the V19 base-metal sulphide resource and follow up of 3D IP targets within EL 20/1996. In total, Frontier have drilled 34 drill holes for 5477.2m on EL20/1996.

## **Work Program 2007/8 Field Season**

The primary focus of Frontier's planned exploration work for the 2007/2008 field season will be low impact field reconnaissance based on two sites within the Innes Peak EL19/2006. Work is planned to proceed in Late November / Early December 2007 with follow up late summer / autumn 2008.

The proposed work program for EL19/2006 focuses on the D'Aguilar South and Hales West Prospects, with low impact geological mapping and stream sediment sampling in other select areas. Highly prospective areas delineated will be further followed up and drill tested if warranted.

Three phases of anomaly discrimination are planned:

- First pass focused toward GIS generated targets and filling in stream sediment sample gaps via geological mapping, rock chip, panned concentrates and -80# sampling. Preliminary soil sampling may be undertaken where warranted on generated targets;
- Follow up via soil sampling (and infill) and more detailed geological mapping and rock chip sampling; and
- Drilling depending on outcomes of initial work.

### **Hales River West**

- 2km long zone with anomalous stream sediments, to 240 ppm Pb, C-horizon samples Pb to 860 ppm, Zn to 880 ppm. Favorable general geologic stratigraphy for VHMS, with little detailed mapping.
- Unsamplred streams within the anomalous basin.
- No panned concentrate or -80# gold assays from soils or streams.

At Hales River West, a 1 x 0.5km grid at 200m line spacing is planned to be C-horizon soil sampled at 25m spacing (Figure 2). Grid cutting will be minimised where possible, however the south west corner of the grid area is likely to require cutting. Anomalous areas identified during initial sampling may be infill sampled with 100m spaced grids.

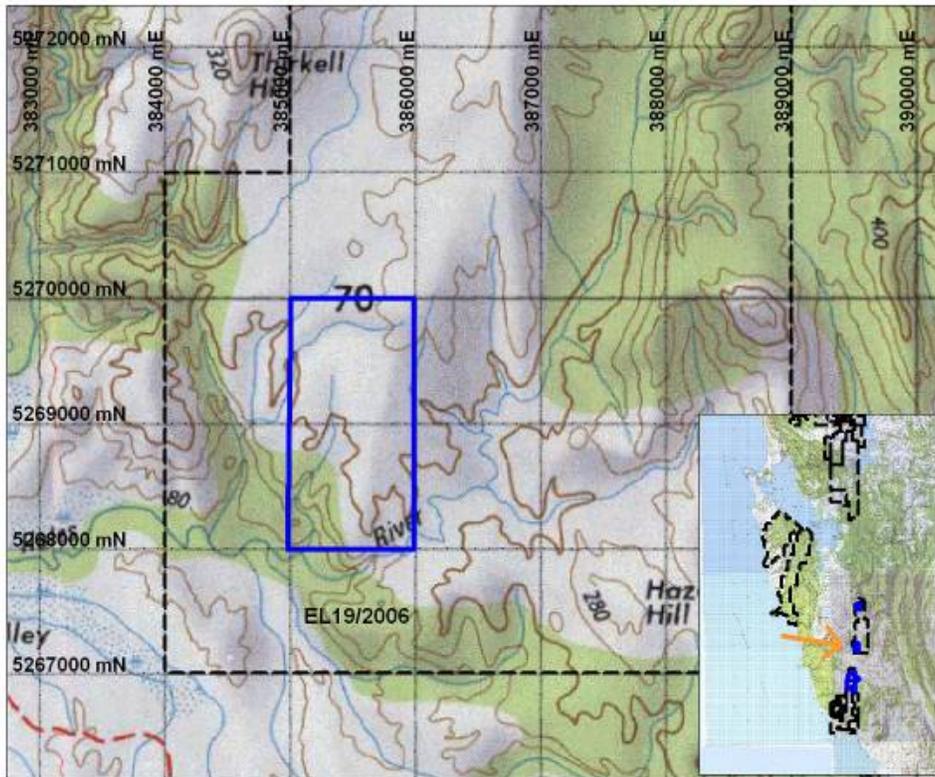


Figure 2: Hales River West Proposed grid area.

### D'Aguilar South

- Widespread Cu, Pb, and Zn anomalism in stream sediment samples
- Highly anomalous gold in pan concentrates including six pans of visible gold
- A broad zone of anomalous gold in Huminex soils.
- Massive silica±sericite±hematite alteration with rock chip samples to 125ppb Au.
- Intense chlorite±pyrite alteration is mapped in the interpreted stratigraphic footwall position to gold-anomalous outcropping mineralization.
- Recommendation by Anglo American geologist Russel Fulton (1996, 1997) for drill testing at depth (250-300m hole) never received follow-up.

Work in the D'Aguilar South area will be principally reconnaissance in nature. The target area is shown in Figure 3.

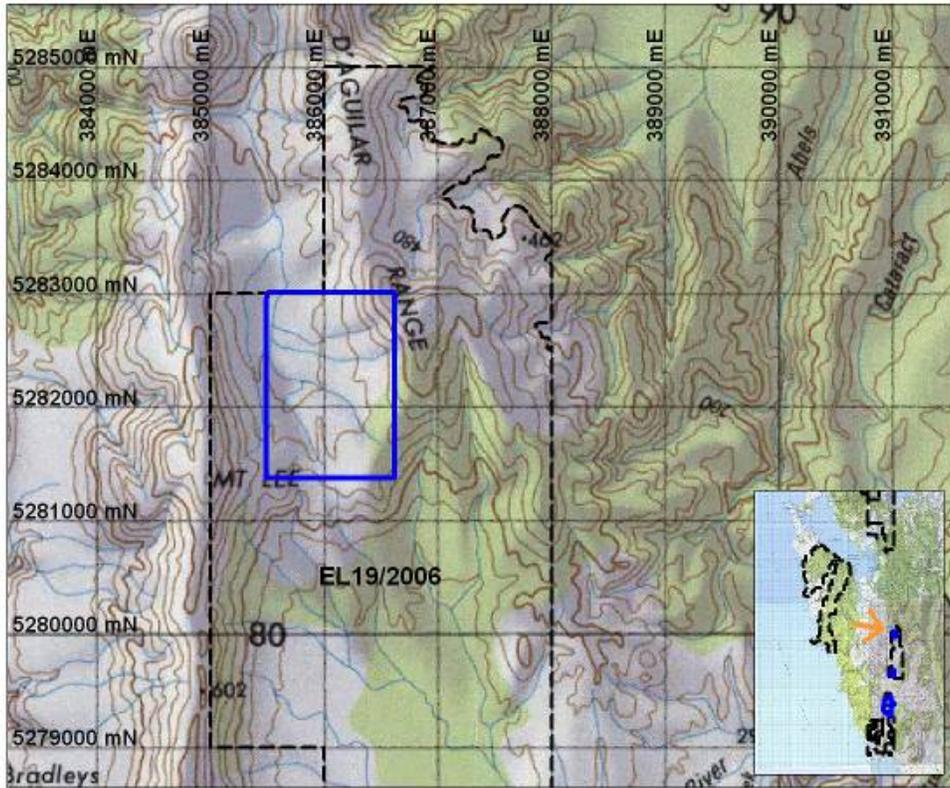


Figure 3: Location of the D'Aguiar South Prospect / proposed area of focus.

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