(A.B.N. 96 095 684 389)

P.O. Box 7996
Gold Coast Mail Centre
Queensland 9726
AUSTRALIA

Telephone: +61 (7) 5592 2274
Facsimile: +61 (7) 5592 2275
Email: info@frontierresources.com.au
Internet: www.frontierresources.com.au

# EL 19/2006 – Innes Peak

# Final Relinquishment Report to 22 August 2008.

**Robert Reid**
**(Exploration Manager – Tasmania),**
**Frontier Resources Ltd.**

**Graham Fish**
**(Director)**
**Frontier Resources Ltd**
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## Summary

EL 19/2006 Innes Peak, currently held by Frontier Resources, is due for expiry on the 22 August 2008. This is the Final Relinquishment Report for the tenement. The Exploration Licence has been surrendered in favour of increasing exploration activity at the nearby SMRV Exploration Licences – EL 20/1996 Elliot Bay, EL 21/1999 Wanderer River and EL 20/2006 Lewis River – as well as the northern Tasmanian tenements - Narrawa and River Lea (RL's 3&4/2005).

Little work has been carried out during the twelve months following the 2007 report. That undertaken being office based interpretation. However significant work on all the other SMRV prospects held by Frontier was conducted from late November 2007 to early May, 2008.

## Introduction

EL 19/2006, Innes Peak (64 $km^2$), is one of four tenements held by Frontier Resources in the highly prospective Southern Mount Read Volcanic (SMRV) province. Most attention has been focussed on the other tenements and for this reason Frontier has reluctantly decided to relinquish the Innes Peak tenement.

Key target deposit styles for the EL 19/2006 are high-grade polymetallic sulfide VHMS deposits, Henty-style high grade gold deposits and other Hybrid VHMS types. Evaluation of prospectivity has been based upon GIS data collection and amalgamation with existing geochemical and geophysical data, stream sediment surveying, soil surveying and sound geological and structural mapping.

## 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 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). The Innes Peak area also remains classified as Conservation Area and as such is open to mineral exploration.

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, 10 kilometres north of Mt Osmund, 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 and 2007 mobilisation efficiently utilised the Hobart Ports barge "Kalundra" with some 45 tonnes 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 follows the reverse procedure.

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.

Given the lack of infrastructure, helicopter supported exploration is the only realistic option for the area.

## Tenure

EL19/2006 covers 64 square kilometres extending from the D'Aguilar Range in the north to Moores Valley in the south. The license lies within conservations area, close to the boundary of and in small part bounded by the Franklin-Gordon Wild Rivers National Park. The location of the licence is shown in Figure 1.

## 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 within the volcanic sequence several anomalous Pb, Zn, and Cu anomalous horizons, 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.

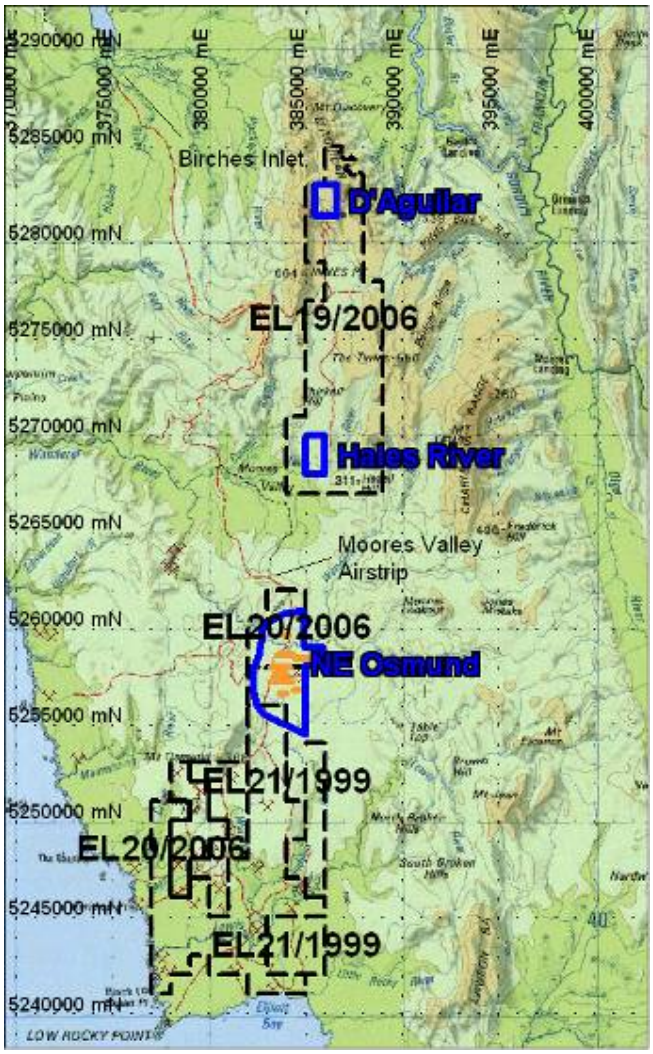


Figure 1: Location of Frontier licence areas – EL 19/2006, Innes Peak; EL 20/2006 Lewis River; EL 21/1999 Wanderer River; EL 20/1996 Elliot Bay

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 griding 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. Further pan concentrate sampling in 1994 at the D'Aguilar 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. (Annual Report to 25th September 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. 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. (Fulton, 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 the1994 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.

## Work Completed

Frontier did not complete any field work on EL 19/2006 during the 2007/2008 field season. Work entailed office based assessment with no new data being generated.

## References

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McNeil, P.A., 1993. Annual Report 1.10.92–25.9.93 EL 3/92 Thirkell Hill, Tasmania.

Poltock, R. 1989. Progress report, twelve months to June 1989, Exploration Licence 40/85, Elliott Bay, Tasmania. Cyprus Gold Australia Corporation (Tasmanian Company Report 89-3032).

Simmons, H. (1998) EL 3/92 Thirkell Hill, Tasmania Annual Report for Twelve Months ending 25 September 1998.

Strickland, C A. 1978. Progress Report EL 27/76 Elliott Bay, 1977/78 field season. Geopeko Ltd.

# Appendix

## *List of Appended Digital Data Files:-*

EL192006_200810_01_Digital_Files.txt
EL192006_200810_02_Report.pdf