



PROTO

RESOURCES & INVESTMENTS LTD

**BARNES HILL WEST PROJECT
DAZZLER RANGE - TASMANIA
EL 53/2008**

ANNUAL TECHNICAL REPORT

28TH APRIL 2012 to 27TH APRIL 2013

Tenement Holder/Manager
Proto Resources & Investments Ltd

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(on behalf of Proto Resources & Investments Ltd)

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SUMMARY

The Barnes Hill West Project (EL53/2008) is located in northern Tasmania, 10km west of the township of Beaconsfield. The exploration licence covers an area of 44km².

The exploration license was applied for by Proto Resources and Investments Ltd (Proto) to explore for nickel laterite mineralisation in ultramafic rocks of the Cambrian Andersons Creek Ultramafic Complex and also to explore for copper-gold mineral deposits in Proterozoic rocks of the Oonah formation.

During previous reporting periods by Proto, soil sampling programs were conducted at both the Pandora Copper Mine prospect and Extension prospect. An area of coincident moderate intensity Cu-Pb-Zn anomalism was identified at the Extension prospect although subsequent interpretation and a field visit indicates this anomaly is associated with a previously unknown mafic or ultramafic intrusion and is hence interpreted to be rock-type related as opposed to mineralisation related.

Activities during the current reporting period by Proto were limited to general administration and funding reviews towards a budget for the proposed exploration programmes, initially outlined in the previous reporting period.

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1. INTRODUCTION

In addition to their Barnes Hill West project tenement EL53/2008, Proto Resources & Investments Ltd (Proto) also holds the adjoining EL17/2006 and 1872P/M tenements to the east containing their Barnes Hill project with a known nickel laterite resource.

The main focus of Proto at the Barnes Hill project is laterite nickel-cobalt mineralisation. The project area contains a 12.5Mt Australasian Joint Ore Reserves Committee (JORC) compliant indicated resource at 0.83% Ni & 0.07% Co (Douglas McKenna and Partners Pty Ltd, A. Jannink 2006). This laterite resource is owned and managed by Proto and consists of three interconnected mineral deposits known as Barnes Hill contained by license 1872PM, and Mt Vulcan and Scott's Hill both contained by license EL17/2006.

The Barnes Hill Project is the priority focus of Proto and joint venture partner Metals Finance Corporation. The partners aim to develop an open pit mining operation at Barnes Hill with processing and production of lateritic nickel, cobalt and iron metals on site.

Since purchase of the project, Proto has reclassified the previously defined mineral resource to JORC indicated status, secured historical databases including drilling and geochemistry, purchased detailed Satellite imagery including ASTER multi-channel and Quick-bird visual band (60cm cell) datasets, undertaken an extensive air core and diamond core resource drilling program, commenced metallurgical testwork, completed a regional soil sampling program, undertaken flora & fauna studies, completed Aboriginal heritage and European heritage surveys, been granted an adjoining exploration licence (EL53/2008), lodged a mining lease application over the Barnes Hill nickel-cobalt laterite deposit and completed studies for submission of a Development Proposal and Environmental Management Plan (DPEMP). In June 2011 the Tasmanian Government granted the mining lease application to Proto (1872P/M), located within the boundaries of EL17/2006.

An historic geochemical stream sediment zinc anomaly discovered by BHP in 1967 and the historic Pandora copper mine mineralization (abandoned since 1913) both remain as exploration targets for Proto at the Barnes Hill West project.

2. LOCATION AND ACCESS

The Barnes Hill West Project is located along the Dazzler Range in northern Tasmania on tenement EL53/2008, approximately 35km north-west of Launceston and 10km west of Beaconsfield, northern Tasmania (see Figure 1).

The Barnes Hill West tenement can be accessed via a number of gazetted roads exiting on the western and southern sides of Beaconsfield including Tattersall's Road, Coppermine Road and Frankford Road.

A wide range of infrastructure and heavy industry occurs in the district including the nearby Beaconsfield Gold mining operation, the Bell Bay Power Station, the Temco Manganese Refinery and the Bell Bay Alumina Refinery. The area also has deep water port facilities at Bell Bay and Beauty Point along with rail facilities. The regional City of Launceston has a population of over 90 thousand people and offers all the services of a major regional city including airport, university and advanced engineering facilities.

3. TENEMENT DETAILS

The Barnes Hill West Project on EL53/2008 covers an area of 44km² and was granted on 28th April 2009 for a period of five years. Proto's mining lease number 1872P/M overlies a small portion of the mid-eastern boundary of EL53/2008 and Proto's EL17/2006 adjoins along the eastern boundary of EL53/2008 and contains 1872P/M (see Figure 2).

4. GEOLOGICAL SETTING

The Barnes Hill West Project occurs in the Badger Head region of northern Tasmania, an important structural location, considered to be the area in which the Tamar Fracture System separates the western and eastern Tasmanian terrains. The area has a complex nature, a result of thrusting during the Devonian and later normal faulting in the Jurassic and Tertiary.

The geology of the Barnes Hill West Project area is dominated by Proterozoic sedimentary rocks of the Oonah Formation (see Figure 2). A small portion of the Cambrian Andersons Creek Ultramafic Complex is mapped on the eastern side of the licence area. The Andersons Creek Ultramafic Complex is considered to be a thrust slice. The airborne magnetic data over the area is dominated by the response of the Anderson Creek Ultramafic Complex with much of the surrounding geology having only subtle responses. Sediments of the Permian to Carboniferous Lower Permian Super Group along with Jurassic dolerite are mapped in the southwest corner of the licence.



Figure 1. Topographic Location Map – Dazzler Range and EL53/2008.

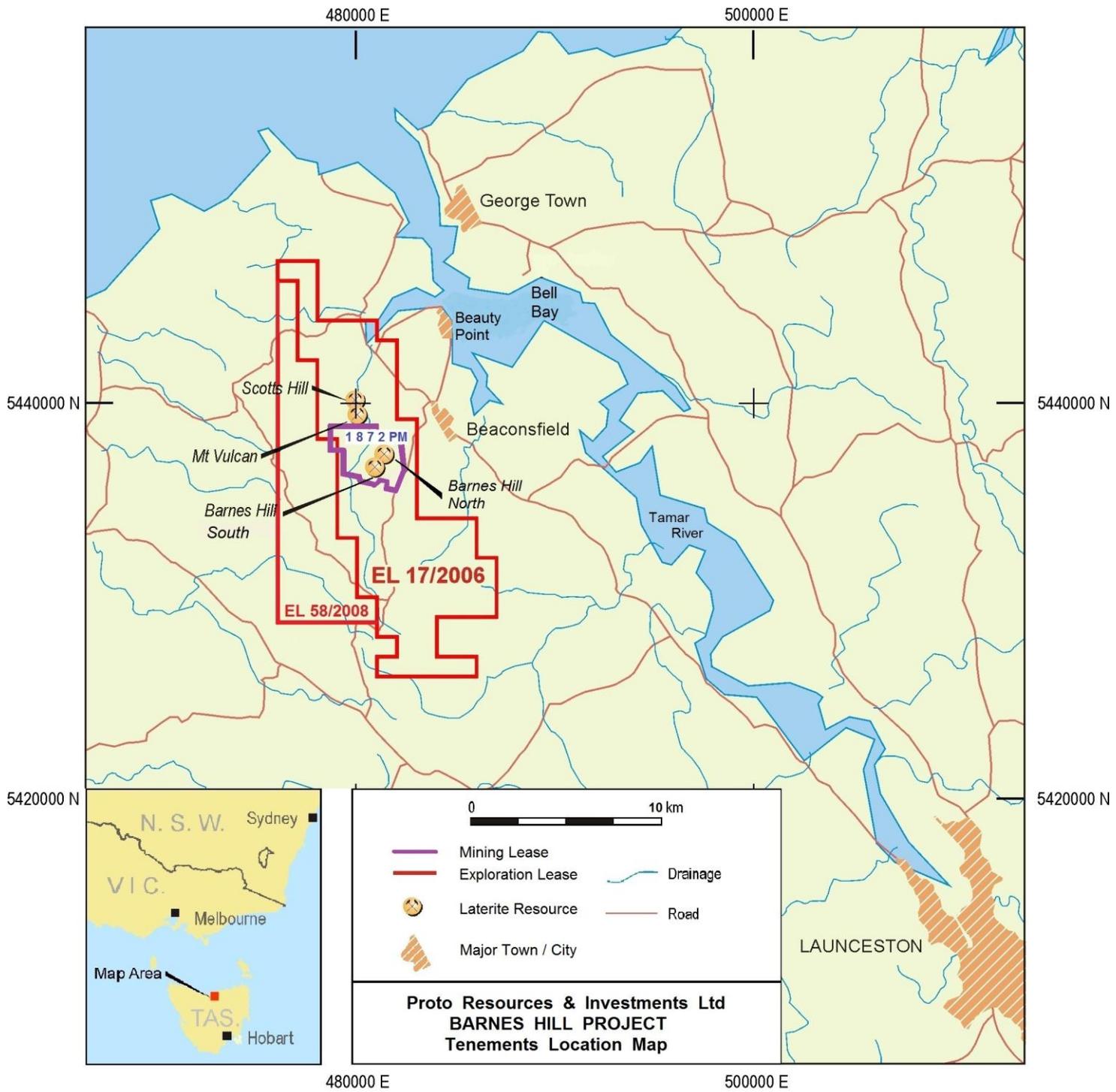


Figure 2. Proto's Barnes Hill tenements and laterite resource locations.

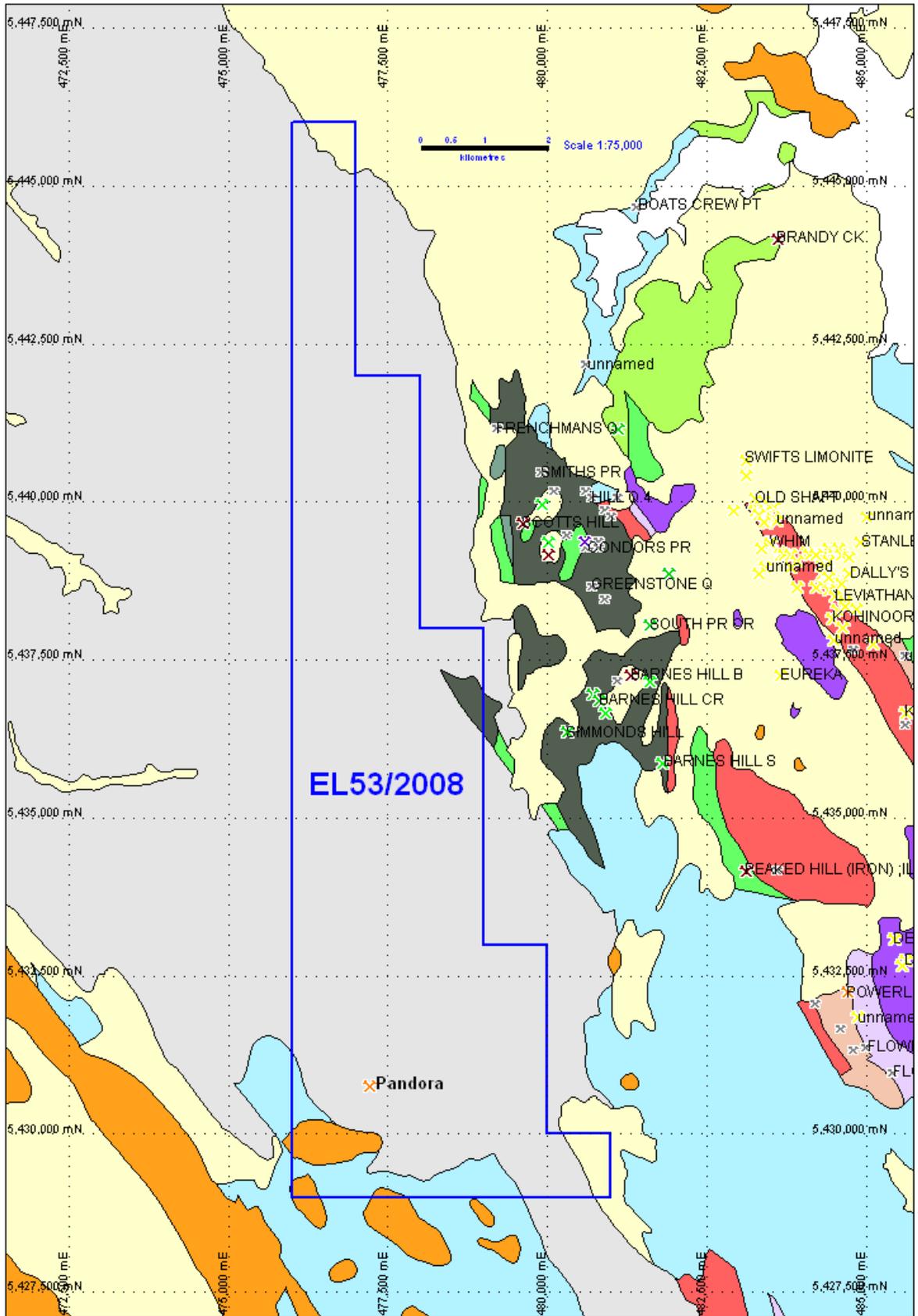


Figure 3. Regional Geology of the Barnes Hill West EL53/2008 area - Onah Formation in grey; Andersons Creek Ultramafic Complex in green; Lower Parmeener Super Group in blue; Jurassic dolerite in orange.

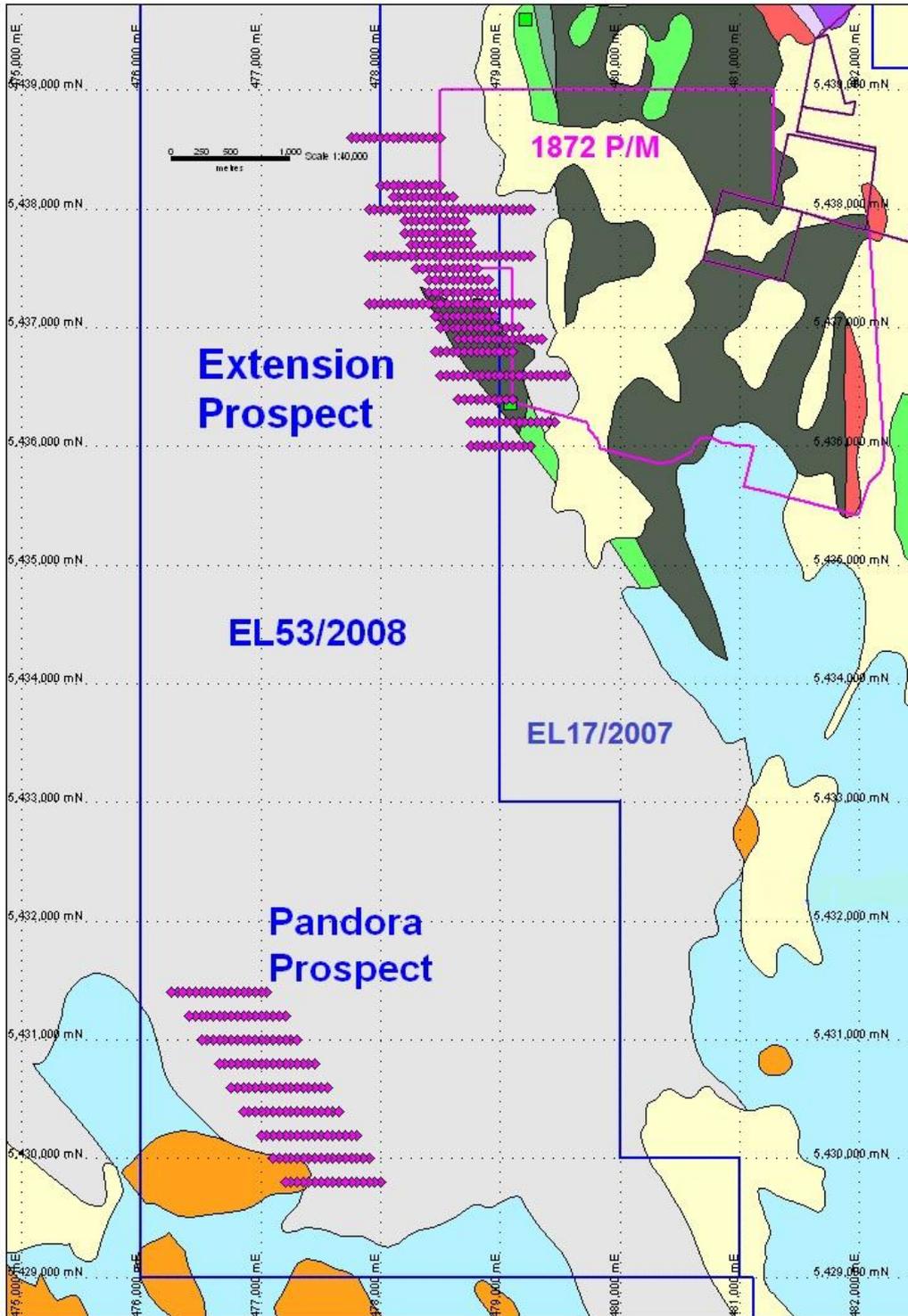


Figure 4. Previous Soil Sampling locations (magenta diamonds) at the Extension and Pandora prospects - EL53/2008 area.

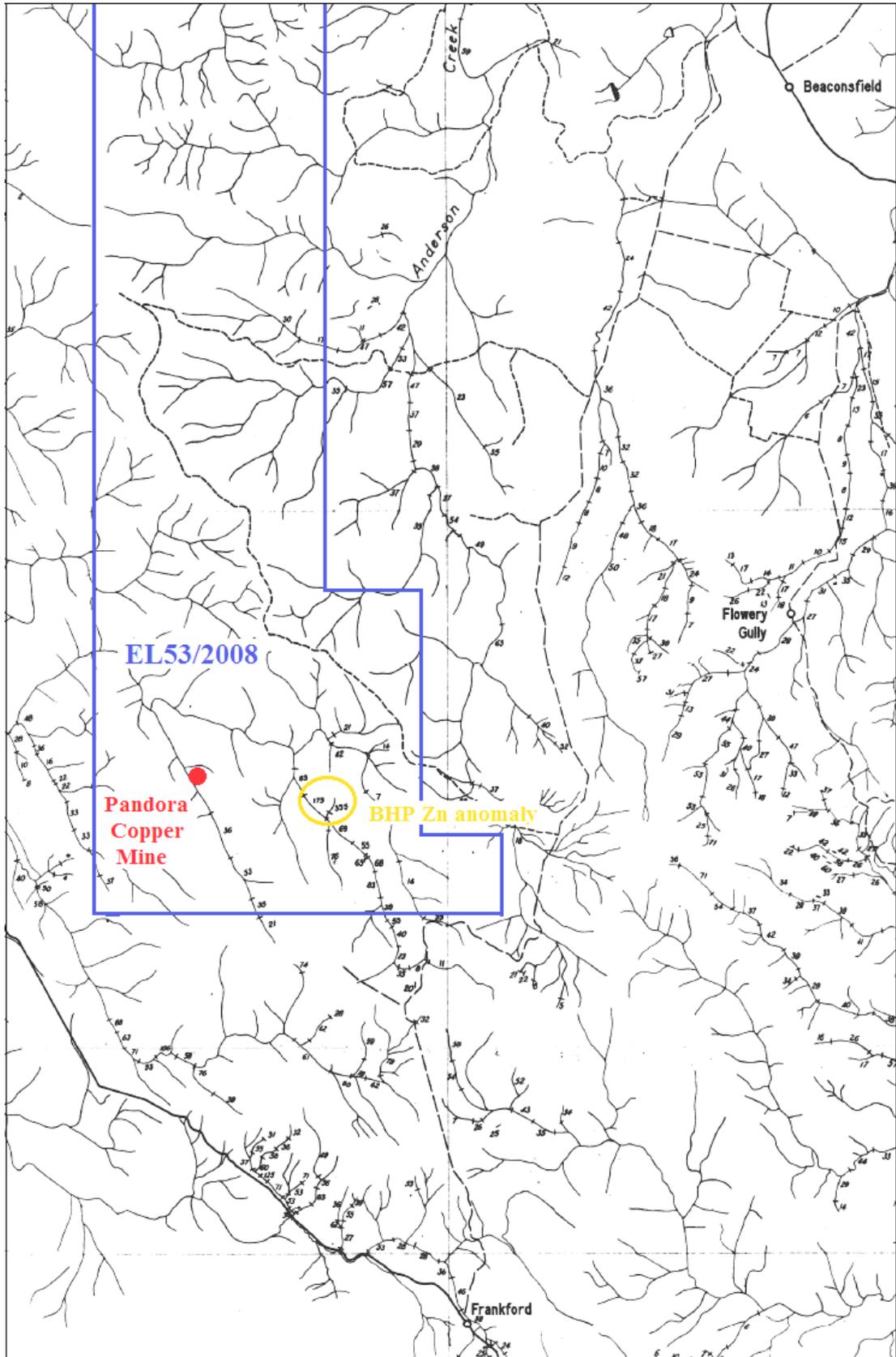


Figure 5. Location of historic BHP stream sediment Zn anomaly position on EL53/2008.

5. EXPLORATION HISTORY

A review of previous exploration on the Barnes Hill West licence has been completed. The area has been explored previously by several companies as discussed below. The main known mineral occurrence in the licence area is the Pandora Copper Mine which was mined on a small scale during the 1890's to 1913. These workings consist of numerous short adits and a 3 to 4 metre deep shaft. Ore rock assays up to 7.5% Cu were obtained by Government Geologist, Montgomery in 1893.

Explorers in the area have included:

- Saxon Creek Copper Mining Co. N.L. in 1897, Pandora Copper Mine.
- May Queen Copper and Gold Mining Co. N.L. in 1913, Pandora Copper Mine.
- BHP Co Ltd who in 1967 undertook a regional drainage stream sediment survey.
- Geopeko Ltd who in 1983 undertook pan concentrate and stream sediment sampling.
- Beaconsfield Gold Mines Ltd between 1987 to 1989 undertook drainage surveys for gold.
- Resolute Ltd between 1996 to 1997 undertook follow-up gold drainage surveys.
- Gujarat NRE Resources NL (formerly Zelos) between 2006 to 2007 undertook literature reviews of previous exploration and geophysical interpretation and stream sediment surveys.

The Barnes Hill West Project was initially acquired by Proto in 2009 for two main reasons:

1. the occurrence of mapped ultramafic rocks at the extension prospect and thus perceived potential for nickel laterite style mineralization (see Figures 3 & 4);
2. and the historic mining activities since the 1890's at the historic Pandora Copper Mine (see Figures 3 to 5).

During 2009-2010 Proto undertook a field trip to the area of mapped Andersons Creek Ultramafic Complex. No outcropping rocks were found but the soil cover was found to be ferruginous, dark red to brown in colour with similarities to the soils further east in the region of the Barnes Hill nickel laterite deposit.

A field trip was also undertaken to locate the Pandora Copper Mine workings. The workings at Pandora, in the form of an adit and a shaft, were found in the base of a creek named Copper Mine Creek. The adit went in approximately 4m and was linked to a 4m deep shaft. The area is heavily overgrown with vegetation.

Two rock chip samples numbered BHWR01 and BHWR02 were collected at the Pandora Copper Mine workings. Both samples were of a schistose sediment rock containing pyritic quartz veins.

The samples were submitted to ALS Laboratories in Adelaide for multi-element analysis returning significant assay results of 1.74% Cu, 1.93ppm Ag, 581ppm As, 372ppm Co; 253ppm Ni, 41.7% Pb and 84ppm Pb.

Activities by Proto during 2010 to 2011 included soil sampling programs at both the Pandora prospect and Extension prospect (see Figure 4). The peak base metal results returned from the Extension Prospect were 143ppm Cu, 198ppm Pb and 415ppm Zn. Elevated base metals were concentrated in an area of 500m x 200m. Infill sampling confirmed the presence of a coincident area of anomalism. Further review of data, including by consultant Neil Rutherford, and a field visit indicated the presence of a small mafic/ultramafic intrusion underlying the area of elevated base metals. The area with elevated base metals also had elevated Ni, Cr, Fe, V and Co and the interpretation was that the anomalism was rock type related and not mineralisation related. Soil sample results from the Pandora Prospect were disappointing returning a peak value of 24ppm Cu.

During the 2011 to 2012 reporting period Proto included a review of historic exploration activity, with a focus on the stream sediment sampling programs in particular, the BHP zinc anomaly 175ppm and 355ppm Zn assays (see Figure 5), encountered to the east of the Pandora Copper Mine.

6. EXPLORATION COMPLETED

Due to restricted funds available during this reporting period for the proposed exploration budget on EL53/2008, as outlined in the 2010 to 2012 annual technical report and exploration license annual return, Proto was unable to conduct field exploration activities during the 2012 to 2013 reporting period. The limited expenditure amount claimed for this period was for general administration and exploration budget funding review activities (Table 1).

Table 1. Expenditure 28th April 2012 to 27th April 2013.

ITEM	Apr-2012 to Apr-2013
General Administration	\$7,009
TOTAL	\$7,009

7. PROPOSED EXPLORATION

Exploration activities proposed by Proto on EL53/2008 for the 2013 to 2014 reporting period are to include the following:

- Geological mapping and rock chip sampling of surface laterite iron enrichments throughout the Ironstone Hills area (same location as the Extension prospect).
- Geological mapping and initial soil sampling at BHP Co Ltd (1967) defined geochemical stream sediment zinc anomalies (175 and 335ppm Zn assays), east of the Pandora Copper Mine.
- A ground Electro-Magnetic survey at the Pandora Copper Mine to test for possible chalcopyrite sulphide ore bodies, as bedrock drilling targets.

8. REFERENCES

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