

PASMINCO EXPLORATION

BULGOBAC HILL EL 37/89 and BULGOBAC RIVER EL 19/94

**ANNUAL REPORT
FOR THE PERIOD ENDING 31st JULY 1999**

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1. SUMMARY

Work undertaken during the reporting period within EL 37/89, Bulgobac Hill, has been carried out dominantly within the Tullabardine prospect area. Exploration activities have included:

- Interpretation of previous infill Partial Leach Soil Sampling
- Minor “C” horizon soil sampling
- Geological mapping and rock chip sampling

The main focus of work carried out within EL 19/94 (Bulgobac River) was on the High Point prospect. Exploration activities comprised:

- Grid cutting
- Partial leach soil sampling

2. INTRODUCTION

This report details work undertaken on the Bulgobac Hill (EL 37/89) and Bulgobac River (EL 19/94) exploration licences, between August 1998 and August 1999.

The Bulgobac Hill license covers a portion of the Cambrian Mt Read Volcanics to the south and west of the Hellyer Mining lease in Western Tasmania (Figure 4). The principal exploration targets sought within the license area are Hellyer-type or Rosebery type volcanogenic Pb-Zn-Cu-Ag-Au massive sulphide deposits. The Que-Hellyer Volcanics, which host the Hellyer and Que River mines, extend into the license area. The Hellyer mine lies 5km to the east of the Bulgobac Hill EL boundary (Figure 4). No outcropping mineralisation has been located in the area. The terrain is heavily vegetated, rugged and poorly accessible. Access into the area is provided by a few overgrown 4WD tracks, along foot tracks, cut grid lines or via boat on Lake Mackintosh.

Exploration activities undertaken during this period have mainly been completed on the Bulgobac Hill license and in particular on the Tullabardine prospect area. Work completed has included interpretation of previous infill partial leach soil sampling, "C" horizon soil sampling, geological mapping and rock chip sampling. Work completed within the Bulgobac River EL has consisted of grid cutting and partial leach soil sampling at the High Point prospect.

Although the old prospectors found no mineralised showings on the EL, near-continuous exploration over the past 30 years has discovered three zinc occurrences within the volcanics:

- High Point (found by BHP in 1988 during drilling of an EM anomaly. BHP drilled 4 holes 1988-89).
- Sock Creek (detected 1973 by drainage survey by Comstaff, who drilled 14 holes prior to 1978).
- Sock Creek South (found by BHP in 1988 during drilling of an EM anomaly. 4 holes were drilled in 1988-89).

Pasminco's involvement in this area commenced in 1990 and has been concentrated on testing the mineralised Que-Hellyer Volcanics at High Point. Previous exploration (prior to Pasminco's involvement) was largely carried out during the period 1963-1989 by Comstaff. BHP completed 4 diamond holes in the late 1980's to test the Hellyer host position at High Point and Pasminco has completed a total of 6 diamond drill holes (BHD 1, 2, 3, 5 & 6) totalling 4,374m in the High Point area to further test this horizon. A deep hole (BHD4, 617m) was also completed at Sock Creek in 1993. The EL has been covered with detailed aeromagnetics, photogrammetry and regional-scale gravity surveys.

3. LAND TENURE

The Bulgobac Hill Exploration Licence 37/89, covering 32sq km, was granted to Pasminco Mining Rosebery in March 1990 (Figure 1). In August 1990 the licence was transferred to Pasminco Exploration.

In May 1992 and October 1993, EL 37/89 was increased to 49sq km by the addition of 7sq km in the Lake Mackintosh area (EL 17/92) and 10sq km in the South Mt Charter area (EL 7/93).

On 2nd September 1995, EL 37/89 was reduced to 28sq km (Purvis, 1995b). The reduced EL is comprised of almost entirely unallocated Crown Land (Figure 2).

Bulgobac River EL 19/94, covering 21km², was granted to Pasminco Australia Limited in January 1995 (Figure 1). The licence is renewable annually on the 6th January. The licence is on unallocated Crown Land, designated as multiple use forest (Figure 3).

4. GEOLOGY

4.1 Bulgobac Hill EL 37/89

EL 37/89 covers two main groups of the Cambrian Mt Read Volcanics - the Central Volcanic Complex (CVC), and correlates of the Dundas Group. A small sliver of the Farrell Slates, east of the Henty Fault, occurs in the SE part of the EL (Figure 5).

The Central Volcanic Complex covers the southern part of the EL and comprises rhyodacitic lavas, porphyries and volcanoclastics (mostly pyroclastics with minor epiclastics). These rocks are known as the Mt Block Volcanics.

The Dundas Group and correlates cover the northern half of the EL. They comprise the Que-Hellyer Volcanics (a mafic volcanic complex), sediments (including the Animal Creek Greywacke, Que River Shale and Southwell SubGroup), quartz-feldspar porphyry bodies, and rhyodacitic volcanics (mainly lavas). The relationship between the various units is shown in Figure 6.

The boundary between the Central Volcanic Complex and the Dundas Group within the EL area is gradational, facing and dipping to the west, with the Dundas Group apparently conformably overlying the CVC.

Major structures on the EL include the NE-trending Henty Fault and the N-S trending Mt Charter Fault (Figure 5). However, the magnetics and gravity highlight the presence of several major, apparently deep-seated, unmapped or poorly-mapped structures trending broadly E-W.

Three zinc-dominated and gold/silver-poor sulphide occurrences are known on the EL. These comprise:

- 1) Disseminated sphalerite-pyrite in altered Que-Hellyer Volcanics adjacent to the Mt Charter Fault at High Point.
- 2) Sphalerite with lesser pyrite-galena-chalcopyrite in net-veins on the contact between quartz-feldspar porphyry and black shale at Sock Creek.
- 3) Weak disseminated sphalerite in black shale at Sock Creek South (best intersection of 1m @ 2.5% Zn).

High Point is by far the most significant occurrence, although the tenor of Zn values intersected to date is not as high as at Sock Creek. Mineralisation occurs at High Point at several stratigraphic levels within the Que-Hellyer Volcanics. At the top of the Hangingwall Volcanics (Hellyer Basalt equivalents), there is an extensive stratiform zone of disseminated sphalerite-pyrite up to 200m thick and averaging 0.2-0.5% Zn. The recent hole BHD6 at High Point has shown there is also disseminated sphalerite mineralisation in the underlying altered "footwall volcanics". The mineralisation in BHD6 indicates the potential for massive

sulphide development in the Mixed Sequence in this area (Purvis, 1995).

At Sock Creek the mineralisation attains grades up to 10% Zn over 1.7m, with a general tenor around 2-5% Zn over 5-10m. There is untested potential at this prospect for an open-cuttable body of mineralisation in the order of 100-200,000t @ 5-10% Zn (Purvis, 1994). An ML was taken out by JG Purvis in 1996 to investigate the potential of this resource, however, drilling appears to have been unsuccessful in increasing the resource base. Subsequently, the ML has been withdrawn and the area again comes under the Bulgobac Hill EL.

No other sulphide occurrences of note are known anywhere on the EL.

4.2 Bulgobac River EL 19/94

Two major groups of rocks occur within EL 19/94. One group consists entirely of Tertiary basalt flows which are considered to have low prospectivity to host base metal mineralisation. The second group consists of Cambrian rocks belonging to the Mt Read Volcanics. This group can be divided into distinct packages occurring on either side of the major structure within the EL, the NNW-SSE trending Mt Charter Fault (Figure 7).

Figure 6 shows the rock types occurring within these two packages and their stratigraphic relationship with one another. The Que and Hellyer ore bodies occur within the Mixed Sequence, which is part of the Que Hellyer Volcanics and is found on the eastern side of the Mt Charter Fault. The fault itself is a highly significant structure, characterised by a zone of shearing, fracture, vein and pug development up to 10m wide in places. The difference in thickness and type of Cambrian units either side of the fault may indicate that it was active as a growth fault during Cambrian times.

The dips on either side of the fault are low angle (5-45°) and are mostly towards the north west. Open folds and considerable faulting disrupt the stratigraphy on the eastern side of the fault. The thickness of the Southwell Subgroup and Que River Shale, coupled with the low angle dips on the eastern side of the fault prevent the Que Hellyer Volcanics from outcropping within the EL. They are observed at surface beyond the eastern boundary.

Volcanic units do outcrop on the western side of the Mt Charter Fault. Although these are believed to be time equivalents of the Que-Hellyer volcanics, they are not thought to be geochemical correlates (A Crawford, pers.comm. to Purvis JG, 1995).

No significant alteration or mineralisation has been identified within the EL boundaries (Lorrigan, 1995).

5. PREVIOUS EXPLORATION

5.1 Bulgobac Hill EL 37/89

Work conducted within EL 37/89 prior to Pasminco's involvement (1990) was carried out between 1963 and 1989 (Purvis, 1994; Purvis 1995a; McGunnigle, 1996; Basford & Murphy, 1997). During this period the current tenement area was part of Comstaff's EL 5/63. Exploration activities (EM and stream sediment surveys) undertaken by Comstaff and JV partners Pruessag (post-1977) and BHP (post-1985) resulted in the discovery and subsequent drilling of three zinc-dominated, volcanic-hosted mineralised prospects:

- Sock Creek (14 drillholes)
- Sock Creek South (4 drillholes)
- High Point (4 drillholes)

In addition, BHP drilled 9 shallow diamond drillholes at Tullabardine Gorge without encountering mineralisation.

Pasminco commenced exploration in the area in 1990. Work undertaken by Pasminco within Bulgobac Hill EL 37/89 between 1990 and 1997 is detailed in Table 1 (Purvis, 1994; Purvis 1995a; McGunnigle, 1996; Purvis, 1996; Basford & Murphy, 1997).

Table 1: - Exploration Undertaken By Pasminco within EL 37/89 - 1990 to 1998

Reporting Period	Work Completed
1990-93	- diamond drilling of mineralised zone in Que-Hellyer Volcanics at High Point (3 holes); drilling of deep diamond hole at Sock Creek; detailed aeromagnetic and photogrammetry across whole of EL; extended regional-scale gravity surveys over the majority of the EL area.
1993-94	- drilling of deep hole (BHD5-771.1m) at High Point; DHEM surveys in BHD5 (High Point) & BHD4 (Sock Creek); detailed ground mag survey at High Point; lithogeochem/petrological survey at High Point, based on hole BHD5; re-logging & further sampling of BHP hole (HP4/4A) at High Point.
1994-95	- drilling to basement at High Point (BHD6-1060.9m); DHEM survey of BHD6; completion of analysis of stratigraphy & volcanic facies in western part of Que-Hellyer Basin, using lithogeochem & petrological data from 19 drillholes; supporting of Honours Thesis (Sam Watkins-Monash University) on the palaeovolcanic history & stratigraphic correlations of Que-Hellyer Volcanics at High Point.
1995-96	- completion of Honours Project; ML application (depth limited to 100m) over Sock Creek prospect by J.G. Purvis resulting in drilling of two holes (SC1 & SC2) with minor Pb -Zn intersections.
1996-97	- geological & geochemical data review, minor grid cutting on northern section of licence.

Table 1: - Exploration Undertaken By Pasminco within EL 37/89 - 1990 to 1998

Reporting Period	Work Completed
1997/98	- work was focused on the Tullabardine prospect area, incl. gridding, IP survey, MMI & infill soil sampling, 1:2500 scale mapping & associated rock chip sampling. A number of targets were defined from this work which were to be tested during 1998/99.

5.2 Bulgobac River EL 19/94

Previous work undertaken by other companies on EL 19/94 has included geological mapping, VFL-EM, IP, CSAMT and gravity surveys conducted by CSR and DHEM, UTEM and magnetic surveys conducted by Aberfoyle. Recent work by a Placer-Aberfoyle Joint Venture included the completion of five diamond drill holes, all of which intersected the Que-Hellyer Volcanics at depth (Richardson, 1994). None of these holes contained mineralisation or significant alteration.

Pasminco began exploration within EL 19/94 in 1995. Table 2 details work undertaken by Pasminco between 1995 and 1997 (Lorrigan, 1995; Dibben, 1996; Murphy, 1997)

Table 2: - Exploration Undertaken By Pasminco within EL 19/94 - 1995 to 1998

Reporting Period	Work Completed
1994-95	-lithogeochemical study (Dr Tony Crawford) to define depth at which the Mixed Sequence occurs in drill holes on eastern side of Mt Charter Fault (>900m)
1995-96	-regional aeromag interpretation to try & locate large alteration zones associated with Rosebery-style mineralisation
1996-97	-refurbishment, mapping, rock chip & soil sampling of Bulgobac River grid; major data compilation as part of Western Tasmania Prospectivity Review; results from both the Bulgobac sampling and data review identified both soil and stream sediment Zn-Pb anomalies within the NW part of the grid (peripheral to and within Tertiary Basalt areas). This area was targeted for further investigation during the current reporting period.
1997-98	- Minor C-horizon soil, stream sediment & rock chip sampling.

6. WORK COMPLETED 1998-99 REPORTING PERIOD

Work undertaken within Bulgobac Hill EL 37/89 in the 1998-99 reporting period has been of a low key nature and focused mostly on the Tullabardine prospect. Activities have included:

- Interpretation of previous infill partial leach soil sampling
- Minor “C” horizon soil sampling
- Geological mapping and rock chip sampling

Work undertaken within Bulgobac River EL 19/94 during the reporting period has also been limited with activities restricted to the High Point prospect. Work here has included:

- Grid cutting
- Partial leach soil sampling

6.1 Bulgobac Hill EL 37/89

6.1.1 Tullabardine Prospect

Tullabardine prospect area is situated approximately two kilometres north east of Tullabardine Dam and three kilometres east of Mt Block. The area covers a relatively inaccessible portion of the Henty Fault zone along the eastern side of the Mt Charter Syncline. The only viable access into the area is by boat from the Tullabardine boat ramp.

During the 1997-98 reporting period, a program of infill soil sampling was completed on the Tullabardine grid (Parfrey, 1998). Eight grid lines were cut at 50m intervals to the north and south of lines 6500N and 7250N. Analytical results from this sampling were outstanding during the previous reporting period and have since been received. The results of this sampling are presented below.

6.1.2 Soil Sampling

Infill soil sampling was completed to constrain several partial leach anomalies highlighted on lines 6500N and 7250N by the 1997 soil survey. One hundred thirty three (133) samples were collected as part of this work. Samples were submitted to Amdel for analysis using proprietary partial leach method IC8/37 and were assayed for Ag, As, Au, Ba, Bi, Cd, Co, Cu, Fe, Mn, Mo, Ni, Pb, Pd, Pt, Sb, Tl & Zn by ICP-MS. Sample locations are shown in Figure 8 and analytical results are presented in Appendix 1.

As a means of assessing the partial leach anomaly identified on grid line 6500N a small number of C horizon soil samples were also collected between 389700E and 390150E. It was thought that conventional sampling may indicate whether part, or all, of the partial leach response observed in this area was due to shallow mineralisation. As the soil profile at this locality is thin ($\leq 1\text{m}$) and residual in origin, any mineralisation close to surface is likely to produce a geochemical signature in the soil profile. Conventional soil geochemistry may therefore provide a means of distinguishing between a near surface response and a response related to more deeply buried mineralisation. The conventional soil sampling should also assist in establishing a total geochemical response over the area, which could then be directly compared to the Partial Leach data.

Thirty three (33) "C" horizon soil samples were collected by hand auger at a depth of 0.2-0.6m (base of the soil profile) and analysed by Analabs using a HF based multi acid digest. Samples were assayed for Pb, Ag, As, Cd, Sn, Co, Sb, Bi, Cu, Zn, Ni, Fe, Mn, Ca, K & Mg by ICP. Au was analysed by Fire Assay and Ba by XRF. Sample locations are shown on Figure 9 and results are presented in Appendix 2.

6.1.3 Geological Mapping

Two days of reconnaissance geological mapping were completed on the Tullabardine grid during the reporting period, to ground check partial leach soil anomalies and constrain the geology in these areas.

Outcropping geology in the prospect area is dominated by steeply east-dipping, grey-green siltstones and shales, which strike NE/SW through the length of the grid. They consist of finely laminated black shale and weakly laminated micaceous siltstone with thin quartz-lithic sandstone horizons. On the eastern edge of the grid the siltstone-shale package is intercalated with variably thick (2m-20m), coarse grained, quartz-feldspar, crystal-, lithic-rich volcanoclastic sandstone and ashy siltstone horizons. The quartz crystals within these horizons are glassy, 2-10mm in diameter and commonly fractured. Clasts of silicified volcanic or chert and numerous rip up clasts of grey shale (some $>0.3\text{m}$ in length) are also common within these units. Volcanoclastic horizons, similar in composition and appearance to the quartz crystal rich units, are present within the Farrell Slates and Murchison Volcanics at the Mackintosh Dam Spillway and on the Murchison Dam road. Based on similarities in composition and depositional environment this unit is interpreted to be a correlate of the Farrell Slates which outcrop on the lake shore at the Tullabardine boat ramp.

West of approximately 389850mE the siltstone-shale-volcanoclastic package passes into a massive thickly bedded micaceous

sandstone/greywacke sequence. The contact between these units is obscured and may be either gradational or a fault. This greywacke sequence is distinguished from the siltstone-shale package to the east, by a dominance of sandstone over siltstone beds and a significant increase in detrital mica content (predominantly muscovite flakes to 5mm). It is likely that this greywacke unit mapped on the Tullabardine grid is a correlate of the Animal Creek Greywacke, which has been mapped to the north west of the grid in the Mt Charter syncline. The composition of both units is nearly identical.

A problem arises however, with the apparent conformable juxtaposition of the Farrell Slates against Animal Creek Greywacke in this area. The Farrell Slates are interpreted to lie significantly higher in the stratigraphy than the Animal Creek Greywacke, which has been mapped as unconformably overlying the CVC at Mt Charter (Corbett and McNeill, 1986). In the Sterling Valley, the Farrell Slates are interpreted to conformably overlie the quartz-phyric Murchison Volcanics (possible correlates of the Tyndall Group).

The relationship that is observed between these two units on the Tullabardine grid is therefore highly problematic. These units have been interpreted to be in faulted contact on the 1:25,000 MRT maps. The fault was not observed in outcrop and the only evidence suggesting its presence is a subtle increase in cleavage intensity.

6.1.4 Rock Chip Sampling

Eight (8) rockchip samples were collected during reconnaissance geological mapping of the infill lines. The samples were submitted to Analabs for multi-element analysis. Analytical results are presented in Appendix 3, and sample locations are shown in Figure 10. All samples were generally low in base metals and gold.

6.2 Bulgobac River EL 19/94

6.2.1 High Point Prospect

Results of the High Point Partial leach (MMI) soil sampling survey completed in 1998 (Parfrey, 1998), and designed to test the area over the Mt Charter Fault from High Point to Que Road, have been received. A total of 246 samples (including duplicates and standards) were analysed at Amdel using proprietary partial leach method IC8/40 and were assayed for Ag, As, Au, Ba, Bi, Cd, Co, Cu, Mo, Ni, Pb, Pd, Pt, Sb, Tl & Zn by ICP-MS. Sample locations are shown in Figure 11 and analytical results are presented in Appendix 4. Samples were nominally taken from the 'B' horizon on 25m spacings and then composited on 50m spacings. Sample numbers were not randomised. After sample collection the grid was

surveyed by DGPS with about 60 points located. Individual sample locations were then calculated by extrapolation between known points.

All samples were analysed as one batch; standard results are good for Ba, Cd, Co, Cu, Mo, Ni, Pb, Tl; consistently high (20-21 ppm vs. expected 17-19 ppm) for Zn and low for Ag and As. The one duplicate shows poor repeatability for all elements, with the exception of Zn, which report above detection limit values. The poor repeatability is most likely due to the compositing of samples and the lack of homogenisation during sample preparation (for this reason compositing of samples has been abandoned in more recent surveys).

Histograms for all elements indicate non-normal strongly negatively skewed populations. To compensate, all interpretation has been done on log transformed data, which yields close to normal distributions. Principal component analysis was completed for all elements, with the exception of Au, Tl, Pt and Pd for which a large proportion (>50%) of the data have below detection limit results. Three factors were defined by the analysis (Figures 12-14):

- Factor 1; BaCoNi.
This factor appears to a lithological response due to Tertiary Basalt cover in the northern part of the grid. Previous surveys (e.g., Beatrice [Denwer and McNeill, 2000]) have shown a Co-Ni association, but, the addition of Ba to the factor (normally associated with Factor 2) in the current survey is not understood.
- Factor 2; AsBiMoPbSb.
This factor has been considered to be a proximal indicator of mineralisation in some previous surveys, however, in the current survey the main area of anomalous Factor 2 coincides with the area where the Que River Shale is closest to surface and may reflect lithological variations.
- Factor 3; AgCuCdZn.
This factor has previously been considered to be a distal indicator of mineralisation. There appear to be no coherent anomalies in this factor apart from a single line anomaly on 6400N. Interestingly the disseminated low-grade Zn mineralisation intersected by DDHs HP1, 2 and 4 does not appear to have produced a partial leach anomaly in this area (too deeply buried?).

In summary the three factors derived from principal component analysis have not defined any significant (multi-line, coherent) anomalies that are not interpretable as lithological features.

If selected individual element plots are considered (with data grided using Xqimage software) then the following can be seen;

- Au (Figure 15) values are uniformly low in the area underlain by Tertiary Basalt, generally elevated where factor 2 is high, and show spot highs coincident with the Factor 3 anomaly on line 6400N.
- Cu (Figure 16) values are generally subdued, with elevated values over the Tertiary Basalt.
- Pb (Figure 17); apart from the area of anomalous Pb in the southern part of the grid, spot highs occur on line 6600N, 6400N and 6200N. There is no obvious correlation between the partial digest results and those of 'C' horizon total digest samples collected previously (Parfrey, 1998; Murphy, 1997b), suggesting that the partial leach results represent results from more deeply buried sources.
- Zn (Figure 18); no multi-line coherent anomalies are obvious, with spot highs on several lines, with the most intense on line 7000N. Zn is only weakly elevated at the eastern end of line 6400N. Partial leach (PL) Zn results generally do not correlate with the total digest 'C' horizon results, except on line 5400N where a Zn PL high corresponds to an elevated total digest result (117 ppm).
- Tl (Figure 19); is strongly, but, variably elevated over the Tertiary Basalt and is also elevated on line 6400N, coincident with Pb and Au.

In conclusion, the results of the partial leach soil survey covering the Mt Charter Fault from High Point to the north are not encouraging. Although there is a multi-element anomaly on line 6400N, this target does not warrant further follow-up using Pasminco's current criteria (i.e., multi-element [including Zn] coherent anomalies on multiple lines). Most other features in the data can be interpreted correlate with bed-rock geology. However, in hindsight the design of the survey, using composite samples, non-random sample numbers and relatively short sampling lines (some only 250m long), may not have been optimal.

7. CONCLUSIONS & RECOMMENDATIONS

Mapping and geochemistry have indicated that a weathered orange to brown manganiferous siltstone and minor quartz sandstone horizon is weakly anomalous in base metals in the Tullabardine prospect area. The anomaly is locally defined in both conventional and partial leach soil geochemistry around grid line 6500N. No significant alteration or visible mineralisation has been observed in the vicinity of this anomaly and the setting is not immediately prospective for Rosebery or Hellyer style VMS mineralisation. Exploration in this area has not been extensive, however, there appear to be insufficient key indicators of significant mineralisation to justify any further work on the Tullabardine anomaly at this stage.

The partial leach soil survey over the Mt Charter Fault from High Point (on EL 37/89) to Que Road (on EL 19/94) was not successful in locating any targets worthy of follow-up. However, there remain considerable areas on both Bulgobac Hill (EL 37/89) and Bulgobac River (EL 19/94) where the target Que-Hellyer ore position may occur at explorable/economic depths (<500m).

It is therefore recommended that the partial leach survey described in this report be extended, with modifications to the survey design (as outlined in section 6.2), to cover the areas of potentially shallowly buried (< 500m) Que-Hellyer ore position on EL's 37/89 and 19/94 and to link this survey with that completed on the adjacent EL 10/98 Mt. Charter (McNeill, 1999) to provide complete coverage of the prospective area.

8. EXPENDITURE

Bulgobac River EL 19/94

Total expenditure for all work undertaken by Pasminco Exploration within Bulgobac River EL 19/94, for the 12 month period ending 31/07/1999 was \$28,158. A detailed expenditure statement is given below.

Personnel	13,346
Travel & Accommodation	992
Geochemical Consultants & Assays	5,399
Geophysical Surveys & Consultants	10
Other Consultants	64
Drilling	63
Stores & Supplies	648
Vehicles Plant & Equipment	372
Land	1,838
Computing	425
Office	2,441
Administration Fee	2,560
Total	28,158

Bulgobac Hill EL 37/89

Total expenditure for all work undertaken by Pasminco Exploration within Bulgobac Hill EL 37/89, for the 12 month period ending 31/07/1999 was \$74,649. A detailed expenditure statement is given below.

Personnel	25,100
Travel & Accommodation	2,016
Geochemical Consultants & Assays	15,954
Geophysical Surveys & Consultants	4,738
Other Contractors	10,042
Drilling Contractors	333
Stores & Supplies	2,062
Vehicles Plant & Equipment	1,345
Land	2,072
Computing	293
Office	3,908
Administration Fee	6,786
Total	74,649

9. KEYWORDS & LOCALITY

Keywords

BULGOBAC HILL, BULGOBAC RIVER, QUE RIVER, HELLYER,
TULLABARDINE, GEOCHEMISTRY, MAPPING, MMI, IP, ZINC, MAFIC,
VOLCANICS

Locality

BURNIE SK55-3

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APPENDIX 1

Tullabardine Prospect - MMI Sampling Analytical Results

APPENDIX 2

Tullabardine Prospect - C-Horizon Soil Sampling Analytical Results

APPENDIX 3

Tullabardine Prospect - Rock Chip Sampling Analytical Results

APPENDIX 4

Highpoint Prospect - MMI Sampling Analytical Results