McKIMMIE CREEK EL 34/2004

ANNUAL REPORT

FOR THE PERIOD ENDING 30th JULY 2009

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SUMMARY

This report details exploration work undertaken during the fifth year of tenure of EL 34/2004, McKimmie Creek.

No field-oriented exploration was conducted on the tenement during this fifth year of tenure.

A gridding and geochemical sampling program was developed for an Avebury-style nickel sulphide target area but was not carried out due to budget constraints that developed around the corporate merger and takeover activity involving Zinifex, OZ Minerals and China Minmetals in 2008 and 2009.

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1. INTRODUCTION

This report details exploration work undertaken on McKimmie Creek EL 34/2004 during the fifth year of tenure.

MMG's main target on EL 34/2004 has been Devonian Pb-Zn vein mineralisation, with Cambrian VHMS systems (to supplement current underground resources at the Rosebery Mine) a more 'conceptual' target.

Exploration in previous years of tenure by MMG (OZ Minerals, Zinifex) has involved a combination of geological mapping, partial leach soil geochemistry and infill time-domain ground EM, where there was either no existing coverage, or the historical work was considered to have been ineffective.

Although close to the town of Rosebery, access to the tenement is made difficult by the course of the Pieman River. The sole vehicular access to the tenement is an 8.1 km long 4WD track opened up by Comstaff in the late 1970's which originates from the Pieman Road (and associated High Voltage powerline access tracks) west of the Bastyan Dam and runs roughly through the centre of the tenement. Several grids were established by Comstaff between 1973 and 1985 but are now too overgrown to be of any practical use.

Recent activity by MMG (OZ Minerals, Zinifex) to establish a new Tailings Storage Facility (TSF) has resulted in the extension of a good quality Forestry Tasmania road, giving new access to most parts of the tenement.

1.1. Attribution

The following personnel were responsible for the work carried out by MMG (OZ Minerals, Zinifex) on EL 34/2004, McKimmie Creek during the reporting period:

Senior Geologist	Darren Hicks
Senior Geologist	Larry Stewart

2. LAND TENURE

EL 34/2004 McKimmie Creek (17 sq km) was granted to Zinifex (now MMG) on 30 July 2004 for a period of 5 years. The location of the tenement is shown in Figures 1 and 2. EL 34/2004 covers ground that fell vacant on the relinquishment of EL 21/96 (Pasminco) in February 2001, EL 29/91 (Golden Reef Enterprises) in 1996 and EL 12/194 (Bruce Resources NL) in 1995.

Land covered by EL 34/2004 is a mixture of crown land designated as Multiple Use State Forest, Unallocated Crown Land, private property, the Mt Kershaw Regional Reserve, MDC informal reserve and some HEC land all of which are available for exploration under the Mineral Resources Development Act 1995. The licence area excludes approximately 3.5 sq km of ML 28M/1993, which impinges on the eastern boundary of McKimmie Creek.

3. GEOLOGY

The regional geology of the tenement area is largely derived from Corbett and McNeill (1986 and 1987) and Corbett (2002).

Much of the bedrock geology of EL 34/2004 McKimmie Creek is obscured by a variable thickness of Quaternary glacial cover (approximately 75% of the area of the licence). The bedrock geology of the area can be divided into three domains, separated by major north-south regional faults:

1. The Mount Read Volcanics (MRV)

2. The "Rosebery Group" or Dundas Group correlates (as defined by Corbett and Lees, 1987)

3. Correlates of the Crimson Creek Formation or the 'Cleveland-Waratah association'

The Mount Read Volcanics, pumice breccias and intrusives forming part of the CVC, occur in the far southeastern part of the licence area, lying above of the Rosebery fault, a moderately east dipping thrust. The MRV fall in the excluded part of the licence, within the Rosebery Mine Lease ML 28M/93.

West of the Rosebery Fault lies a predominantly sedimentary sequence that has been termed the 'Rosebery Group'. The understanding and correlation of the 'Rosebery Group' has undergone considerable re-interpretation since the early work by Hills in 1914 and this evolution is summarised in Green (1983) and Corbett and Lees (1987).

It is now generally agreed that the Chamberlain Shale, largely outcropping in the eastward bulge of the Rosebery Fault, immediately west of the Rosebery ore body, is a west facing correlate of the White Spur Formation (i.e., the Rosebery Hangingwall sequence). The Chamberlain Shale is conformably overlain by the Stitt Quartzite (including the Munro Creek formation of Green [1983]), a prominent marker unit that has fossils indicating correlation with the Cambro-Ordovician Owen Group (Corbett, 2003). The Stitt Quartzite is in turn overlain by the Westcott Argillite, a more carbonate-rich unit. Several other units, in particular the Natone Volcanics, calc-alkaline 'Mount Read'-type volcanics, the Salisbury Conglomerate and gabbroic bodies, have unclear stratigraphic relations to the units described above; Corbett (2002, 2003) concludes that they may be older than the Owen Group correlates (Westcott Argillite, Stitt Quartzite) due to 'structural complexities', whilst Parfrey (1993) argues that the Salisbury Conglomerate is part of the Westcott Argillite and that as the Salisbury Conglomerate over lies and interfingers with the Natone Volcanics (in drill hole Rosebery 1) they are also equivalent to the Westcott Argillite (implying a Owen Group age if Corbett's correlations are correct).

The 'Rosebery Group' is bounded to the west by a major north-south fault, the 'Marionoak Fault'. To the west of this structure is a sequence of mafic greywacke and siltstone with minor tholeiitic basalt lavas that extend from south of Colebrook Hill north to the Huskisson River. These rocks were mapped, following previous workers, as Crimson Creek Formation by Corbett and McNeill (1986), however, these lithologies are now correlated with the allocthonous early-Cambrian Cleveland-Waratah Association (Corbett, 2002 and 2004).

Two mineralised zones are known from the licence area; Salmons Lode, described by A. McIntosh Reid (1918), and minor vein style Pb-Zn mineralisation at Shell's Bastyan Dam grid (Smyth, 1983), both of which occur in lithologies mapped as Westcott Argillite by MRT (a third mineral occurrence is recorded by Green and Bamford (1986), in the Pieman River downstream of the Bastyan Dam, but little information is available on this prospect).

4. PREVIOUS EXPLORATION

The area of EL 34/2004 McKimmie Creek has a long history of 'modern' exploration commencing in the 1970s, as part of EL 5/1963. In the first year of tenure previous exploration over airborne EM anomalies D1 and D2, located by Pasminco (Briggs and McNeill, 2001), has been reviewed and is summarised in Tables 1 and 2, respectively.

Table 1: Previous exploration over the area of Airborne EM anomaly D1

Reporting Period	Work Completed
1972 (Piggott, 1972)	Area covered by –80# and panned concentrate stream sediment sampling and geological mapping of creeks. Work established a geological framework for the area and located low-order stream sediment anomalies.
1973-1974 (Orr, 1974)	Stream sediment sampling was considered to have been 'inadequate' and soil sampling on a large grid was completed; Anomaly D1 lies just east of the sampled area. Recommend an airborne EM survey as the best way to test the area.
1975 (Butt, et al., 1975)	An Input EM survey was completed. Data was interpreted and several anomalies located, including anomaly CS10 a 'fair' bedrock conductor that is roughly coincident with the Pasminco D1 anomaly. No follow-up work appears to have been completed.
1983 (Dvorak, Z.)	A DIGHEM III survey was flown over the entire area of interest. Anomaly 190H was located in the area of interest and was recommended for ground follow-up.
1984 (Trussell, 1984)	The DIGHEM data were further reviewed and the 190H area recommended for ground EM follow-up, as it appeared to be a 'thick conductor'. This work does not appear to have been done.
1998-1999 Parfrey and Simpson (1999)	Identification of priority prospect areas through the completion of an airborne EM Survey. Several discrete anomalous responses, including anomaly D1 were identified - these were considered worthy of further investigation.
2000-2001 Briggs and McNeill (2001)	Detailed interpretation of 1999 Airborne EM survey; – 6 anomalies, including D1 were recommended for follow-up, however this work was not completed.

Table 2: Previous exploration over the area of airborne EM anomaly D2

Reporting Period	Work Completed
1972 (Piggott, 1972)	Area covered by –80# and panned concentrate stream sediment sampling and geological mapping of creeks. Work established a geological framework for the area and located low-order stream sediment anomalies.
1973-1974 (Orr, 1974)	Stream sediment sampling was considered to have been 'inadequate' and soil sampling on a large grid was completed; this grid did not cover the 'marshy' area overlying anomaly D2. Recommend an airborne EM survey as the best way to test the area.
1975 (Butt, et al., 1975)	An Input EM survey was completed over the entire East Renison Block. Data was interpreted and several anomalies located, including the GAO anomaly that is roughly coincident with the Pasminco D2 anomaly.
1979 (Hall, 1979)	The GAO anomaly area was gridded (3.97km), geologically mapped, soil sampled and ground magnetic and EM (Crone shootback) surveys completed. It was concluded that there were no positive results and no further work was warranted.

1983 (Dvorak, Z.)	A DIGHEM III survey was flown over the entire area of interest. Anomalies 170F-180H and 190K were located in the area of interest and were recommended for ground follow-up.
1984 (Trussell, 1984)	The DIGHEM data were further reviewed and the 170F-180H, 190K area (Pasminco anomaly D2) recommended for ground EM follow-up.
1984-1985 (Shaw and Everett, 1985; Everett, 1985)	A 5 line km grid was established, soil sampled on the southern two lines (as most grid overlaps GAO), ground magnetic and GENIE EM surveys completed and two diamond drill holes (180H/1 and 180H/2) completed for a total of 218.5m. Both holes intersected black carbonaceous shales with little geochemical encouragement and no further work was recommended.
1998-1999 Parfrey and Simpson (1999)	Identification of priority prospect areas through the completion of an airborne EM Survey. Several discrete anomalous responses, including anomaly D1 were identified - these were considered worthy of further investigation.
2000-2001 Briggs and McNeill (2001)	Detailed interpretation of 1999 Airborne EM survey; – 6 anomalies, were recommended for follow-up. Anomaly D2 was not recommended for follow-up on the basis of the lack of geochemical response in DDH 180H/1 & 2.

Table 3; Previous exploration on EL 34/2004

Reporting period	Work Completed
2004-2005 McNeill (2005)	Previous exploration reviewed and digital data compiled.
2005-2006 Skirka & McNeill (2006)	Gridding, mapping and partial leach soil sampling completed across the D2 anomaly. 3.7 line km of gridding completed, 155 (including standards and duplicates) samples collected and assayed
2006-2007 Hicks (2007)	Results received from the 155 (including standards and duplicates) samples collected in previous year
2007-2008 Hicks (2008a and 2008b)	No surface exploration. Partial Relinquishment of 8km^2 completed.

5. WORK COMPLETED 2007-2008 REPORTING PERIOD

No field-oriented exploration was conducted on the tenement during this fifth year of tenure. The phase of grid cutting, geological mapping and partial leach soil sampling across the D2 anomaly reported in the previous annual report downgraded the potential of this area for target mineralisation.

A desk top study to assess the potential of the tenement to host Avebury-style nickel sulphide deposits was completed. A gridding and geochemical sampling program was developed for an Avebury-style nickel sulphide target area but was not carried out due to budget constraints.

6. WORK COMPLETED IN PREVIOUS YEARS

6.1. YEAR 1, 2004-2005

Work involved a review of previous exploration over two known EM anomalies.

6.1.1. Previous Exploration Data

Previous exploration data from the GAO/180H grids (covering the D2 anomaly) was compiled. A0 horizon soil sampling for the GAO grid and results from diamond drill holes 180H1 and 180H2 were digitally compiled and are included in Appendix 1 (digital copy only). Only line profiles, and not primary data, were available for the C Horizon soil sampling on the GAO grid as is the case for the two lines of the 180H grid sampled in 1984/1985 (Shaw and Everett, 1985; however, refer to a report by Thynne [1984] which may include the raw data. Unfortunately this report does not appear to be in the MRT library).

Compilation of data from Shell's Bastyan Dam grid commenced and drill hole data are included in Appendix 1 (digital copy only).

Data compilation was incomplete and all outstanding data was planned to be collated during the next year of tenure.

6.2. YEAR 2, 2005-2006

Work completed comprised grid cutting, geological mapping and partial leach soil sampling across the D2 anomaly.

6.2.1. Partial Leach Soil Survey

A total of 3.7 line km of new grid was cut and surveyed with GPS. The entire grid was soil sampled for partial leach geochemistry in order to test for geochemical anomalism across the D2 EM anomaly.

Randomised sample numbers were used in partial leach sampling to reduce the effect of analytical variations. The partial leach soil samples were collected at 25m intervals, at or near a grid peg, and involved digging a hole with a pick, removing the organic rich A-horizon and collecting approximately 500g of sample from the nominal B horizon. The samples were then placed in ziplock plastic bags and, once returned to the field office, the bags were stored open to prevent anaerobic reactions. When a batch of 400 samples was

collected, the sample bags were sealed and the samples despatched to Amdel in South Australia for analysis by partial leach technique DL42. Elements determined were Ag, As, Au, Ba, Bi, Cd, Cu, Co, Mo, Pb, Ni, Y, Zn and the rare earth elements Ce, Eu, Gd, La and Sm. The pH of the leachate, after digestion, was also determined. Results are included as Appendices 1 and 2 and sample locations are shown on Plan 1.

Three duplicate and two standard samples were collected per 100 samples. The field duplicates were also analysed in duplicate to allow assessment of both the sample and laboratory variance. Additionally at each sample site a small amount of soil was collected and stored in a chip tray for reference and to allow soil colour to be recorded. Soil colour was assigned from a Munsell Colour chart with 19 colours and was then assigned to one of six colour groups.

The 155 samples (including duplicates and standards) collected for this program were analysed as part of batch SDS 4559.

Results from batch SDS 4559 had not been received by the time of writing and will be fully reported in next year's annual report.

6.2.2. Geological Mapping

Geological mapping during the reporting period comprised 3.7 line km of traverses on the D2 anomaly grid and limited mapping of creeks that cross cut the grid. Outcrop on the grid is poor averaging <5% and bedrock is locally obscured by fluvioglacials. Outcrop geology is presented as Plan 2. Interpreted Cambrian lithologies are restricted to the southern part of the grid and comprise two main lithological units.

Laminated Black Shale

The western part of line 3200N is underlain by a bluish grey, laminated to very thinly bedded, siliceous siltstone to black shale. This unit is in part graphitic / carbonaceous with minor carbonate veining and rare qtz-sulphide (pyrite?) veins. This unit also contains minor interbedded, very fine grained, micaceous sandstone with weak fe-oxide staining. This unit is interpreted to correlate with carbonaceous 'pelites' reported by Everitt (1985) in drillholes 180H/1 and 180H/2.

Fossiliferous Dolomitic Sandstone/Limestone

Located to the immediate east of the black shale unit is a light greenish grey to bluish grey, fine grained to medium grained, fossiliferous, calcareous or dolomitic sandstone/limestone. This unit has a distinct nodular (ooidal?) crystalline texture with sporadic unidentified fossils. The relationship between this unit and the black shale unit to the west is unknown.

6.3. YEAR 3, 2006-2007

The grid cutting, geological mapping and partial leach soil sampling across the D2 anomaly which commenced in Y2 was completed in the third year of tenure.

6.3.1. Partial leach Soil Survey

A total of 3.7 line km of new grid was cut and surveyed with GPS during the previous reporting period. The entire grid was soil sampled for partial leach geochemistry in order to test for geochemical anomalism across the D2 EM anomaly. Results of assays from this sampling are now available. Location of samples is shown on Plan 1.

Please refer to the previous annual report (Skirka and McNeill, 2006) for the methodology involved in this sampling.

The 155 samples (including duplicates and standards) collected for this program were analysed as part of batch SDS 4559. All information from this analysis is contained in Appendix 1. Line profiles for all elements across the 4 grid lines 3200mN to 3500mN are included in Appendix 2. No profiles were constructed for the short, segmented baseline (see Plan 1), however, assay data is included in Appendix 1. Contoured raw single element plans are included in Appendix 3

6.4. YEAR 4, 2007-2008

There was no surface exploration work completed in the fourth year of tenure.

A partial relinquishment of 8 square kilometres was completed. No surface exploration had been completed over the relinquished portion of the tenement during the life of the tenement. The relinquished portion of EL 34/2004 (8 square kilometres) was considered to have a low potential of hosting targeted mineralisation styles.

7. CONCLUSIONS & RECOMMENDATIONS

Work by MMG (OZ Minerals, Zinifex) on EL 34/2004, McKimmie Creek commenced with collection and review of previous exploration (gridding, soil sampling and diamond drilling) over two known EM anomalies. In subsequent years programs of grid cutting, geological mapping and partial leach soil sampling were completed over areas with no existing soils coverage, or the historical work was considered to have been ineffective.

In the fourth year of tenure a partial relinquishment of some 8 square kilometres was completed. No surface exploration had been completed by MMG (OZ Minerals, Zinifex) on this relinquished area.

An area within the overall area covered by EL 34/2004 was the subject of a study by the Rosebery Mine for its suitability as a location at which to establish a new Tailings Storage Facility (TSF). Results of the study led to the subsequent application and granting of Mining Lease 6M/2008 for this purpose.

One interpretation of regional aeromagnetic data was that ultramafic rocks underlie some of the southern portion of EL 24/2004. Interpretations of regional gravity data are that this same area is underlain at depth by Devonian granite. This regional scenario is considered to be prospective for Avebury-style nickel sulphide mineralisation. A gridding and geochemical sampling program was developed for this area but was not carried out due to the corporate circumstances that faced MMG (OZ Minerals, Zinifex) during 2008 and 2009.

8. EXPENDITURE

Expenditure on EL 34/2004 McKimmie Creek during the 12 month period ending 30 July 2009 was **$ 2,100**. A detailed breakdown of this expenditure is presented below.

Personnel	$ 981
Travel & Accommodation	$
Consultants & Contractors	$
Geological Consultants	$
Geochemical Consultants & Assays	$
Geophysical Surveys & Contractors	$
Drilling	$
Stores & Supplies	$ 55
Vehicles Plant & Equipment	$
Land	$
Computing	$
Office	$ 873
Administration Fee (10%)	$ 191
Total Tenement Expenditure	**$ 2,100**

9. KEYWORDS & LOCALITY

Keywords

Previous Exploration, Nickel, Tailings Storage Facility

Locality

1:250,000	QUEENSTOWN SK55-5
1:100,000	SOPHIA 8014; PIEMAN 7914
1:25,000	ROSEBERY 3637

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