



EL 16/2007, GROOVE CREEK

FINAL REPORT FOR THE PERIOD
JUNE 2006 TO AUGUST 2009

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1. SUMMARY

This report details exploration work undertaken on EL 16/2007, Groove Creek for the life of the tenement, which comprised the collection of 204 line kilometres of helicopter-borne time-domain EM survey (VTEM) as part of a larger regional survey of MMG (Zinifex, OZ Minerals) tenure in Tasmania.

All the anomalous responses interpreted from the final VTEM data were considered to be explained by cultural features and non-prospective geology (for Cambrian Rosebery or Hellyer type, Zn-Pb-Cu-Au-rich Volcanic Massive Sulphide mineralisation hosted by the Mount Read Volcanics).

Potential ground exploration follow-up indicated in previous reports as possible for the tenement in the second and subsequent years of tenure, e.g., testing VTEM anomalies by field checking, geological mapping and sampling, ground-EM and diamond drilling was considered unwarranted in the light of this interpretation and the tenement recommended for relinquishment in August 2009.

2. INTRODUCTION

EL 16/2007, Groove Creek (40 sq km) was granted to Zinifex Ltd on 13 June 2007 for a period of 5 years. Zinifex's main target on the tenement is Cambrian Rosebery or Hellyer type, Zn-Pb-Cu-Au-rich Volcanic Massive Sulphide mineralisation hosted by the Mount Read Volcanics (MRV).

On July 18th 2008 the name of Zinifex Australia Limited was changed to OZ Minerals Australia Ltd as a result of a corporate merger between Zinifex Ltd and Oxiana Ltd. In June 2009 China Minmetals Non-Ferrous Metals Co Ltd acquired from OZ Minerals Ltd a 100% indirect interest (through its subsidiary Album Investment Pty Ltd) in MMG Australia Limited, previously OZ Minerals Australia Ltd, the holder of the tenement.

Zinifex and subsequently OZ Minerals and MMG planned to explore the tenement using a combination of: previous exploration data reviews, geological mapping, whole rock and conventional soil geochemistry, followed-up by selective ground and airborne time-domain EM, then drilling of areas of interest.

The tenement covers an area of moderate relief, which is occasionally heavily forested and incised (e.g. Wilmot River). It extends from Lake Paloona, west through Lower Wilmot towards the townships of Upper Castra as well as north towards Preston and Sprent (see Figure 1). Access to the area is via numerous sealed arterial roads, minor sealed and unsealed roads, forestry tracks and numerous 4WD tracks in private property.

3. LAND TENURE

EL 16/2007 Groove Creek (40 sq km) was granted to Zinifex Ltd on 13 June 2007 for a period of 5 years. The tenement application was over vacant ground; however numerous tenements have covered this ground over a number of years. The location of the tenement is shown on Figure 2, and the tenement exploration history is addressed in Section 5 below.

On July 18th 2008 the name of Zinifex Australia Limited was changed to OZ Minerals Australia Ltd as a result of a corporate merger between Zinifex Ltd and Oxiana Ltd. In June 2009 China Minmetals Non-Ferrous Metals Co Ltd acquired from OZ Minerals Ltd a 100% indirect interest (through its subsidiary Album Investment Pty Ltd) in MMG Australia Limited, previously OZ Minerals Australia Ltd, the holder of the tenement.

The tenement has no exclusions due to mining leases and the like. Other land tenures within the tenement area include private land, State/Multiple Use Forest, MDC Informal Reserve, Aurora/Hydro/TransEnd Lands, and Crown Land, all of which are available for exploration under the Mineral Resources Development Act 1995. This licence area also contains areas that are listed as Forest Communities Managed by Prescription.

4. GEOLOGY

4.1. Regional Setting

The regional geological framework of the Mt Read Belt (MRB) is subdivided, from an exploration perspective, into three elements. The central MRB covering the area of outcrop from south of Queenstown to north of Hellyer, the northern MRB covering the area from Back Bluff eastwards through Gowrie Park and Mole Creek, and the Southern MRB comprising areas west and south of Macquarie Harbour. The Groove Creek tenement is in the east-central part of the northern MRB.

Basement in the Central and Northern MRB is of Precambrian age, comprising predominantly greenschist facies metasediments with minor basalts and dolerites. Higher grade amphibolite and eclogite facies are also present within the Precambrian. This Precambrian basement, termed the Tyennan Block, lies to the south of the tenement.

Cambrian volcanism and sedimentation developed on the Precambrian continental crust and, in the Central MRB, is subdivided into the Eo-Cambrian Tholeiitic Crimson Creek Formation (CCF), the mid to late Cambrian Dundas Group and the predominantly calc-alkaline, Mt Read Volcanics (MRV).

The CCF was deposited in shallow but rapidly subsiding basins comprising basaltic lavas and volcanoclastics, turbidites, carbonates, chert and minor evaporites. This formation is not exposed in the licence area. Ultramafic cumulates and volcanic equivalents were thrust onto the CCF in the mid Cambrian. They are also absent from the licence area.

The MRV, in the Central MRB, form a 200 km long by 20 km wide north-south trending belt along the eastern side of the Dundas Trough, adjacent to and in some areas overlapping and intruding the Precambrian basement. The northern extension of the MRV swings eastwards around the northern margin of the Tyennan Precambrian block. The volcanics include intermediate to felsic lavas, subvolcanic porphyries and granites, volcanoclastics and basement-derived sedimentary rocks. The MRV host five economically significant volcanic hosted massive sulphide deposits all of which lie in the Central MRB.

During late CVC to early Tyndall Group time, Cambrian granitoids intruded the volcanic pile. The majority of the granitoids occur along the eastern margin of the volcanics and stitch the volcanics to the Tyennan Block.

Cambrian volcanism and sedimentation was followed by predominantly basement derived late Cambrian to Devonian age sedimentation, including siliciclastic conglomerate, sandstone and limestone. These sequences occur within, and peripheral to, the project area.

At least two phases of regional compression were associated with the mid Devonian Tabberabberan Orogeny. The development of folding, cleavage and regional thrusts in lower Palaeozoic rocks were associated with this event. Fold trends in the licence area are variable, some NW, and lesser E-W.

Deformation was followed by the extensive intrusion of Devonian to Carboniferous granitoids of batholithic proportions. The Dalcoath Granite (and associated hornfels aureole) outcrops southwest of the licence, and the Housetop Granite outcrops across a large area to the northwest of the tenement. The Devonian granites are associated with carbonate replacement Sn mineralisation at Renison Bell and Mount Bischoff, and the Pb-Zn-Ag vein deposits of Zeehan and possibly the Tullah Fields. A similar setting may be interpreted for the base metal vein deposits in the district (eg. Round Hill workings).

Ordovician and older rocks (not outcropping within the licence) are unconformably overlain by marine sediments, including tillite, forming the basal units of the Permian Parmeener Supergroup. Small bodies of Jurassic dolerite intrude the Permian sediments and older rocks.

After substantial erosion of this terrane, extensive Tertiary flood basalts and subvolcanic sediments were deposited. Basalt flows cover minor parts of the licence area. In the Quaternary, talus deposits have developed on the lower slopes of Mt Roland and alluvial deposits have formed in the valley of major rivers.

4.2. Groove Creek Tenement

One of the main problems with exploring in the Fossey Mountain Trough was perceived to be making correlations with the well-known stratigraphy of the Central Mount Read Volcanics, in particular locating equivalents of the “Holy Host” (i.e. the top of the CVC or it’s equivalent). A recent review, using the whole-rock geochemical data from the Tasmanian 3D model, and additional data in Zinifex’s database, has defined several areas of felsic volcanics with geochemical signatures equivalent to the top of the CVC at Rosebery. The Groove Creek tenement was designed to cover these areas of potential “Holy Host” stratigraphy. Bedrock geology is displayed on Figure 3.

A series of new maps have been produced by MRT, giving geological coverage at 1:25,000 across the Groove Creek tenement and the adjacent project tenements, EL 16/2005, 17/2005 and 18/2005 (WTRMP mapping project). A comprehensive overview can be gained from the 1:100,000 WTRMP sheet and accompanying report (Corbett and McClenaghan, 2003) and further mapping by Dr Corbett has been focussed on discriminating the affinities and correlates of inferred central MRV units in the project area. A summary of this work by Dr Corbett is contained in Hicks, 2006.

5. PREVIOUS EXPLORATION

The area encompassed by the Groove Creek tenement has had an irregular exploration history for base metals starting in the 1960's, with current philosophies and methods applied since the mid 1970's. It is believed that no surface drill holes have been collared on the tenement. The tenement can therefore be considered under-explored, as the majority of work described below only partially overlaps with current tenure, with much of this current tenure rapidly discounted through early regional surveys.

Modern exploration commenced in the 1960's with regional geological compilations (eg. Burns, 1957, Whiting, 1970) and aeromagnetics surveys (eg Zarzavatjian, 1966; Webb, 1968; Chestnut, 1967) focusing on broad areas and less relevant commodities or styles of mineralisation.

As is often the case, the first phase of focussed exploration (1970's) delineated most of the currently known anomalies within and adjacent to the tenement. Tenements EL 19/72 (see Porter, 1976, who provide comprehensive summaries of exploration on the tenement area to that date) and EL 7/73 (see Barker, 1975 and Clementson and Flis, 1983) have overlaps with the nearby project tenements.

After a break of several years, exploration became more focussed on Cambrian VHMS style mineralisation, again with only partial overlap onto the project tenements. Work on EL 8/77 (Caithness, 1986), EL 36/79 (eg Wright, 1983), EL 33/83 (Vivian, 1984a & b), EL 43/85 (eg. Sise, 1987) and EL 49/87 (Randell, 1988) led to the identification of a limited number of new prospects. An apparent trend throughout the 1980's and early 1990's was for explorers to re-assess the geology, previous exploration and open-file data, complete variably detailed reconnaissance with some follow-up, and then relinquish the licence having deemed the area a low probability of significant base metal discovery. EL 19/90 (Jones, 1991) and EL 42/92 (Vicary, 1994) are good examples of this. Some quite focussed exploration was conducted by RGC exploration on EL 15/92 (Vicary, 1995a) but areas of interest did not overlap on the current tenure.

Zinifex has previously explored parts of the nearby project tenement area. Geopeko managed exploration on behalf of the E.Z. Co. (who became Pasmaenco, who became Zinifex Ltd) in EL 96/87, which reverted to Pasmaenco control during 1990. There is some overlap of EL 96/87 into the project tenements (see Virgoe, 1990 and Fitzgerald, 1991). Other tenements held by Pasmaenco/Zinifex in the vicinity of the tenement include EL 3/1998 (Lake Barrington) and EL 13/2000 (Paradise). Both tenements were prematurely relinquished in 2002, primarily due to internal factors at the time.

The ground that makes up the Groove Creek tenement was vacant prior to the granting of EL 16/2007. The most recent exploration appears to be that of Pasmaenco on the Lake Barrington and Paradise tenements. However, none of the work completed by Pasmaenco on these licences overlaps onto the current tenement.

Table 1 lists previous tenement holders in the Groove Creek-Sheffield-Castra-Nietta area, and Table 2 gives an overview of work completed prior to the granting of the Groove Creek tenement in June 2007.

TABLE 1: Previous tenement holders in the vicinity of the Groove Creek tenement

| Company | Reference | EL | Granted | Relinquished / JV | Relevant Prospects | Previous Tenements |
|------------------------|-----------------------------------------|-------|----------------|-------------------|--------------------|--------------------|
| 1. AMEG | Webb, 1968 | 8/65 | ? | ? | Nil | Regional |
| 2. BHP | Chesnut, 1967; Cochrane, 1970 | 15/65 | 1965 | 1970 | Nil | Regional |
| 3. Scamander Mining Co | Whiting, 1970 | 14/70 | ?1970 | ? | Nil | Regional |
| 4. CRAE | Porter, 1976; Purvis, 1978 | 19/72 | 1972 | ?1978 | 1,2,3, ?4, 9, 10 | 10/73 |
| 5. Asarco | Barker, 1975 | 7/73 | 1973 | JV to CRAE, 1975 | 5, 6, 7 | - |
| 6. CRAE | Clementson, 1982; Temby, 1985 | 7/73 | CRAE post 1983 | 1988 | 7, 8 | 7/73 |
| 7. CRAE | Caithness, 1986 | 8/77 | 1985 JV | ?1987 | 3, 1, ?9 | ? |
| 8. Shell, CRAE | Wright, 1983; Hungerford, 1989, 1990 | 36/79 | 1980 | 1990 | 11, 3 | 2/76, 19/72 |
| 9. AMAX | Vivian, 1984a & b | 33/83 | 1983 | ?1984 | 5, ?10 | - |
| 10. Aberfoyle | Sise, 1987; Wallace, 1991 | 43/85 | 1986 | 1991 | 8, 12 | 49/82 |
| 11. Billiton | Randell, 1988 | 49/87 | 1987 | 1988 | Nil | - |
| 12. Geopeko | Virgoe, 1990; | 96/87 | 1987 | JV to PasEx 1990 | 1,2,3, 4 | - |
| 13. Pasmenco | Fitzgerald, 1991 | 96/87 | 1990 | 1991 | 1, 2, 3, 4 | 96/87 |
| 14. Noranda | Jones, 1991 | 19/90 | 1990 | 1991 | ?5 | - |
| 15. RGC Expl | Vicary, 1995c | 15/92 | 1992 | 1995 | 12, | 11/88, 15/92 |
| 16. RGC Expl | Vicary, 1995a, b | 42/92 | 1993 | 1996 | 1, 2, 3, 11 | Various |

Prospects: 1= Crosby Ck, 2= Loyetea Nth, 3= Loyetea Sth [incl. Tulip Tree Ck], 4= Castra Rd, 5= Wilmot, 6= Razorback Ridge [?aka Loyetea Sth], 7= Lake Barrington Cu, 8= Stonebridge, 9= Prestons Ag, 10= McPhersons, 11= Challenger2 [aka - Native Track Tier], 12= Beulah.

TABLE 2: Previous work on the Groove Creek tenement area by other Companies

| Company | Year | Exploration Activities |
|------------------------------------------|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1, 2, 3: AMEG, BHP, Scamander Mining Co. | 1965 - 1970 | Regional aeromagnetics, data review – old school thinking, no prospects of relevance, poorly documented, often without specific tenement information. |
| 4. CRAE | 1972 - 1978 | <p>CRAE conducted the first (and probably most successful) modern exploration program in the vicinity of the tenement. The exploration program (EL 19/72) can be summarised chronologically as follows:</p> <ul style="list-style-type: none"> • Geological compilation (1972) and inspection of known mineralisation, including Preston Ag and McPhersons prospects. • Stream sediment sampling program (1973, unknown no. of samples) detected only low level base metal concentrations. The best was from the Crosby Creek area (380ppm Zn, 70ppm Pb) • A 5-line 10m spaced soil sampling program was designed to follow-up this area (600ppm Zn, 1210ppm Pb, 480ppm Cu being peak values obtained) • More regional soil sampling in 1973-74: 15 km² using 400m x 20m grid. Best results: 5100ppm Pb 244ppm Zn, 200ppm Cu – defined the Castra anomalies • Further regional soil sampling and mapping in 1975, at various scales. Reasons for sampling new areas were due to geological interpretation of depositional environments. Best results not given, but defined the Loyetea North and Loyetea South anomalies. • Airborne EM flown April 1975 across most of tenement • Magnetics, IP and auger sampling completed on Crosby Creek prospect in 1975. Best results from the auger work was 3000ppm Pb, 500ppm Zn and 400ppm Cu. • 3 diamond drillholes completed for 652m at Crosby Creek prospect in 1975 (DD 75 CC1 to DD 75 CC3) • Blanket gradient-array IP over Crosby Creek and Loyetea prospects • 2 diamond drillholes completed for 500.30m at Loyetea South prospect in 1976 (DD 76 LS1 & DD 76 LS2) • Concluded that the highest order anomalies have been tested, recommended some further work at Crosby Creek and Loyetea South prospects, proposed a JV of tenement. |
| 5, 6: ASARCO, CRAE | 1972 - 1978 | <p>The ground originally held by Asarco under EL 7/73 is closest to EL 16/2007</p> <p>During tenure, Asarco completed the following</p> <ul style="list-style-type: none"> • regional stream sediment (25 samples) and rockchip (67 samples) sampling, mapping and review/evaluation. They identified a low level anomalies at Loyetea South and Wilmot before the tenement was joint ventured with CRAE. <p>CRAE joint ventured into this large tenement in 1976 to assess targets generated through Asarco's stream sampling programme. CRAE, who also held EL 10/76, explored the area from 1976-1988. The majority of prospects that were explored by CRAE in EL 7/73 were not on the</p> |

| Company | Year | Exploration Activities |
|----------------------------------|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | current project tenements. However, the Wilmot anomaly (and possibly the Stonebridge anomaly) are, and were followed up with more detailed stream and soil geochemistry, as well as VLF-EM and ground magnetics. The eventual conclusion reached by CRAE was lack of evidence and tenor of mineralising systems, but still some (low) potential for such systems to occur in the district. CRA relinquished EL 7/73 in 1988. |
| 7. CRAE | 1985 - 1987 | CRAE explored EL 8/77 (which has no overlap with EL 16/2007) for a brief time by: <ul style="list-style-type: none"> • Regional drainage sampling program – unknown number of samples, but this program identified Crosby Creek and Loyetea South anomalies again. • Recommended re-sampling of Crosby Creek and Loyetea South drillcore to vector towards Au and base metal mineralisation. |
| 8. SHELL (BILLITON) - CRAE JV | 1980 - 1990 | EL 36/79 has no overlap with current tenure. Across EL 36/79, Shell completed the following: <ul style="list-style-type: none"> • Airborne magnetics and radiometrics • regional INPUT airborne EM • regional drainage and soil geochemistry. The one anomaly coincident with current tenure is Tulip Creek (also known as Loyetea South). Shell found only low order, sporadic anomalism and poor repeatability, so recommended no follow-up. <p>CRAE began exploring this JV tenement in 1985, but focussed on areas outside current tenure. Detailed work has been completed on the Challenger II anomaly (also known as Native Track Tier anomaly) which has possible strike extensions into the western portion of EL 17/2005 Nietta.</p> |
| 9. AMAX | 1983 - 1984? | EL 33/83 coincides with much of the central and southeastern parts of the nearby tenements. AMAX completed the following activities in 1983 and 1984: <ul style="list-style-type: none"> • Review of existing geophysical and geochemical data • Minor check sampling of anomalous drainages and rock chip locations • Reconnaissance and rock chip sampling (with samples sent for whole rock analysis) in the vicinity of McPhersons anomaly • Further stream (48 samples) and rock chip (20 samples) sampling • DIGHEM airborne EM (360 line km) over part of the tenement This latest work failed to highlight areas worthy of follow-up, and AMAX surrendered the tenement. |
| 10. ABERFOYLE | 1986 - 1991 | The northern portion of EL 43/85 overlaps with part of the southeastern area in the project tenements (ie Sheffield licence). Aberfoyle completed significant exploration across their tenement, but only minor parts of interest coincide with current Zinifex tenure. Work completed on relevant areas includes: <ul style="list-style-type: none"> • Some regional mapping traverses, and limited grid mapping at the Stonebridge prospect • Minor portion of a UTEM survey on the Stonebridge grid, no anomalies detected. Aberfoyle downgraded the prospectivity of much of the overlapping areas of EL 43/85 and current tenure quite early in the tenement life, and therefore little work has been completed. |
| 11. SHELL/BILLITON | 1987 - 1988 | Billiton tackled this area in a similar manner to previous explorers – regional reviews and stream sediment sampling programs. Details are: |

| Company | Year | Exploration Activities |
|------------------------------|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | <ul style="list-style-type: none"> 69 sample sites giving 1-3 sq km coverage, both conventional ¼"BLEG and -80# samples were collected. Sample sites where cultural interference was too high were either not sampled or flagged as possibly contaminated. Approximately 10 anomalies were identified (none within current Zinifex tenure) but almost all failed to reproduce when re-sampled. The tenement was abandoned based on these results and a re-assessment of the regional geology. |
| 12, 13: GEOPEKO, PASMINGO | 1987 - 1991 | <p>Geopeko (and Pasmingo) document a thorough examination of existing data and clever application of further exploration methodology in their 1987-1991 tenure (EL 96/87). While no new anomalous areas were identified, several were re-visited, extended and probably fully tested to current thinking at the time. This work can be summarised by prospect as follows:</p> <p>Loyetea South (Tulip Tree Creek grid):</p> <ul style="list-style-type: none"> 2 new lines cleared and sampled (rock chip instead of C-horizon due to scree cover) – only 3 of 30 samples anomalous (>200ppm Pb) – closes off anomalous zone on grid Ground magnetics <p>Crosby Creek:</p> <ul style="list-style-type: none"> A new 7-line grid of 11.5 kms was cut to the SE of CRAE's old grid, geologically mapped Rock chip (162 samples) or C-horizon soils (291 samples) collected on these lines at 20m spacing – six samples anomalous in Pb, and 20 in Zn define a new area of interest southeast of CRAE's 1976 work. An offset Cu anomaly (low level) is also defined. 4 BLEG and 2 standard stream sediment samples collected – assays at background levels. <p>Regional work:</p> <ul style="list-style-type: none"> Eleven samples were analysed for Pb-isotopes – 5 from Tulip Tree Creek grid, 2 from McPhersons prospect, 1 from Preston Ag prospect, and 3 from CRAE diamond drillholes from Crosby Creek. All possess Cambrian Pb signatures, the significance of this noted. 34 rock samples were submitted for detailed thin section petrological description.- mostly from Tulip Tree Creek and Crosby Creek, but also Preston Ag and Loyetea Sth drillholes. This petrology confirmed most field names used. Zinc ratios were determined for 32 samples with >200ppm Pb from similar areas to those sent for petrology. Results suggest 6 samples (core from Crosby Creek, rockchip from McPherson's Prospect) have classic Cambrian VHMS signatures, while Prestons Ag Prospect and 2 other samples show Cambrian vein-style mineralisation signatures An attempt was made to re-interpret regional aeromagnetics, radiometrics and gravity data for the tenement, but failed to see through local effects from numerous intrusive bodies. The negative geochemical anomaly at Castra Road was interpreted to represent |

| Company | Year | Exploration Activities |
|-------------------|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | <p>possible evidence of ore systems (hydrothermal depletion), and its prospectivity was highlighted by mapped zones of sericite-pyrite-silica alteration.</p> <p>Management of exploration in EL 96/87 reverted to Pasmenco in July 1990, after which time no new work was completed and the tenement was relinquished in April 1991.</p> |
| 14: NORANDA | 1990 - 1991 | <p>No results of relevance to current Zinifex tenure arose from the very limited review Noranda completed across EL 19/90. There is a small overlap with parts of the Nietta tenement, but no anomalies were identified or recommendations for further work made by Noranda before relinquishment.</p> |
| 15, 16: RGC EXPL. | 1993 - 1996 | <p>RGC Exploration were active in two areas in the mid 1990's.</p> <ol style="list-style-type: none"> 1. The first of these (EL 15/92) has a very small overlap with current Zinifex tenure and no results of interest. 2. The second area was in EL 42/92, partly overlapping the Nietta portion of the project tenements. Work completed by RGC in this area consisted of: <ul style="list-style-type: none"> • 1:10,000 geological mapping and compilation which tied the geological sequences at Tulip Tree Creek with the Crosby Creek area. • Collection and assaying 9 rock chip samples from the Leven Canyon area (outside current tenure) • Re-logging of the 3 Crosby Creek diamond holes. <p>RGC were discouraged by the lack of mapped hydrothermal alteration, and chose not to extend tenure.</p> |

6. WORK COMPLETED ON EL 16/2007 GROOVE CREEK

6.1. YEAR 1, 2007-2008

Contractor Geotech Airborne Pty Ltd flew a helicopter-borne Time Domain Electromagnetic survey (VTEM) over the Groove Creek tenement in late April 2008. A total of 204 line kilometres of data was collected, as part of a continuous block of data encompassing all of Zinifex licences EL 18/2005 and 16/2007 (326.3 line kilometre Block 4 - see Appendix 1).

The survey consisted of 200m spaced E-W flight lines at a nominal 80 metre helicopter height and 30m EM sensor/loop height above ground level. Flight speed was a nominal 80 km/hr, but this was expected to vary in areas of rugged terrain. Full details of the specifications of the survey are contained in Appendix 1, alternatively available at the contractor's website (www.geotechairborne.com).

Due to the timing of the survey, final data had not been received at the time of compiling the Year 1 Annual Report. It was intended to include the final interpretation in the Year 2 Annual Report for this tenement in 2009.

6.2. YEAR 2, 2008 - 2009

Final data was received, processed and interpreted in the second year of tenure. The data is displayed as a series of images of selected channels in Plans 1, 2 and 3. From these images a number of responses were selected as requiring additional investigation. More detailed processing and modelling of these selected anomalous responses provided little encouragement to conduct ground activities over them.

Additional desk top studies of these selected responses with respect to geology (250,000 scale MRT geology) and culture/infrastructure (MRT and GA topographic layers) in MapInfo and Google Earth showed that the selected VTEM responses of interest could be correlated with geological units (typically Tertiary flood basalt) or culture/infrastructure (buildings, roads, powerlines, and railway tracks).

6.3. YEAR 3, 2009 - 2010

No work carried out on the tenement. A technical review over all the MMG tenements in Tasmania included a review of EL 16/2007, Groove Creek.

7. CONCLUSIONS & RECOMMENDATIONS

Work completed during the first two years of tenure over EL 16/2007 Groove Creek involved the collection, processing and interpretation of 204 line kilometres of VTEM data. A number of responses were selected as requiring additional investigation. More detailed processing and modelling of these selected anomalous responses provided little encouragement to conduct ground activities over them.

Additional desk top studies of these anomalous responses with respect to geology and culture/infrastructure indicated that the anomalous VTEM responses of interest could be correlated with geological units (typically Tertiary flood basalt) or culture/infrastructure (buildings, roads, powerlines, and railway tracks). Ground follow-up of the anomalous responses is not deemed warranted.

MMG decided to relinquish EL 16/2007 Groove Creek in August 2009..

8. KEYWORDS & LOCALITY

Keywords

Geology, Fossey Mountain Trough, Castra, MRV, VTEM Helicopter EM, previous exploration, Tyndall Group, CVC, Holy Host,

Locality

1:250,000 BURNIE SK 55-3

1:100,000 INGLIS 8015, FORTH 8115.

1:25,000 CASTRA 4242, KINDRED 4243

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