



PASMINCO ROSEBERY MINE

WHITE SPUR EL 5/1996

**PROGRESS REPORT
FOR THE PERIOD ENDING 5th MARCH 2004**

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1. SUMMARY

This report details work undertaken on exploration licence 5/1996 White Spur between 5th March 2003 and 5th March 2004, year 8 of the licence. The principal exploration targets sought within the licence area are Hellyer- or Rosebery-type volcanogenic Pb-Zn-Cu-Ag-Au massive sulphide deposits.

During the year exploration progress was restricted by budgetary cut backs in May-October 2003 and much of the planned work, outlined in McNeill (2003) could not be completed. Work was restricted to:

- A two loop Time domain EM survey to detail the anomaly located by DHEM surveys in YWS1 and WSP6.
- Re-processing and interpretation of the 1997 Goldfield's CSAMT survey.
- Further geological mapping in the northern part of the tenement.

2. INTRODUCTION

This report details work undertaken on exploration licence 5/1996 White Spur (Figure 1), between 5 March 2003 and 5 March 2004, year 8 of the licence.

The White Spur licence covers a portion of the Cambrian Mount Read Volcanics to the south of the Rosebery and Hercules Mines and to the west of the Henty Mine in Western Tasmania (Figure 2). The principal exploration targets sought within the licence area are Hellyer- or Rosebery-type volcanogenic Pb-Zn-Cu-Ag-Au massive sulphide deposits. A 5 km strike length of the contact between the White Spur Formation (WSF) and the Central Volcanic Complex (CVC), a stratigraphic position that is a direct correlate of the Rosebery and Hercules ore positions; although not recognised as such until the mid-1990's, runs through the centre of the tenement and has been the main target of recent exploration. A second and less well understood target is the Jones Creek package, in the NE part of the tenement. This sequence of shales and fine volcanogenic sediments associated with rhyolitic intrusives, is thought to correlate with the Rosebery host position, but, correlations are not as clear as for the base of the White Spur Formation due to structural complications.

Access into the tenement is via Howards Rd. (off the Anthony Rd) or on 4WD tracks (in particular the Moores Pimple track) heading south from Mt Read and the Hercules Mine. Within the EL access is via a series of old logging tracks and a new HEC road, which follows a major canal.

2.1 Attribution

The following personnel were responsible for the work carried out within the White Spur licence area during the reporting period:

Senior Geologist:	Andrew McNeill - Pasminco Rosebery Mine
Consultant Geophysicist:	Jovan Silic – Jovan Silic and Associates

3. LAND TENURE

White Spur EL 5/1996, 20 sq km, was granted to RGC exploration on 5 April 1996 after a successful bid on ETA 401 (resulting from the relinquishment of EL 11/85 by a Pasminco/North Ltd./Australian Resources JV). In June 1998 RGC merged with Westralian Sands to form a new company, Iluka Resources, whose core activity was mineral sand mining. As a result RGC's gold and base metal interests were to be divested. Goldfields Exploration commenced negotiations with Iluka for the transfer of all RGC's Tasmanian tenements to Goldfields in 1998 and these negotiations were concluded in July 2000. However, by this time Goldfields were focussed almost exclusively on gold exploration and they decided to seek a joint venture partner for the base metal prospective White Spur tenement.

In August 2000 Goldfields approached Pasminco Exploration with the proposal for a direct swap of EL 5/96 for Pasminco's EL 6/98 Queenstown. An agreement was signed in May 2001, and the tenement was transferred to Pasminco Australia Limited on 2nd August 2002. Due to the ongoing negotiations between Goldfields and Pasminco the statutory 50% relinquishment of EL 5/96 White Spur, due on 5th April 2001, has been deferred until April 2003.

Land covered by EL 5/96 comprises land vested in the HEC (105 ha) with the remainder being Crown Land designated as Deferred Forests. The EL is almost entirely within the Mt Dundas Regional Reserve (exploration allowed, but, programs must be approved by the MEWG).

4. GEOLOGY

The regional geology of EL 5/96 White Spur is described on MRVP Map 3 (Corbett, 1986) and in Vicary (1997, 1998). Some areas have been mapped in more detail as Honours (Dugdale, 1992; Nunn, 1995) and M Econ. Geol. (Poltock, 1992) theses.

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. EL 5/96 is in the central part of the central MRB.

Basement in the Central and Northern MRB is of Precambrian age, comprising predominantly greenschist facies meta-sediments 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 east of the White Spur licence.

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. Ultramafic cumulates and volcanic equivalents were thrust onto the CCF in the mid Cambrian. They are absent from the licence area.

The MRV in the area of EL 5/96 can be subdivided into three main units; the WSF, CVC and Henty Fault Wedge Sequence. Of these only the first two are part of the VHMS prospective sequence.

The White Spur Formation was formally defined by Corbett and Lees (1987) as a west facing sequence of felsic tuff, siltstone, greywacke and slate that unconformably overlies

the Central Volcanic Complex between the North Henty Fault and Williamsford. It is conformably overlain by Dundas Group type conglomerates, quartzwacke, mudstone and lithicwacke on the western end of Howards Road. The abundance of quartz-phyric detritus in the White Spur Formation may suggest derivation from Tyndall Group rocks located to the east of the Henty Fault Zone.

The WSF can be divided into eight mappable sedimentary lithofacies in the White Spur area (Vicary 1997, 1998). These are:

- A Black pyritic siltstones
- B Micaceous volcanoclastic sediments
- C Ashy volcanoclastic siltstones
- D Medium – fine grained volcanoclastic sandstones
- E Crystal-rich volcanoclastic sandstones
- F Coarse lithic rich volcanoclastic conglomerate

The internal stratigraphy of the WSF is complex, but, in general in the northern part of EL 5/96 the CVC are directly overlain by coarse mass flow deposits (Facies F), whereas to the south finer grained lithologies (particularly Facies A and B) predominate. In addition there are intrusive feldspar-quartz-phyric rhyolite and quartz-feldspar porphyry bodies at different levels in the sequence. Clasts of sulphide have been identified in the basal mass flow deposits of the WSF to the north of 5362200mN. These clasts are considered to have been derived from the erosion of the sulphide deposits by down-slope mass flow movements.

The CVC comprises largely feldspar-phyric dacitic pumiceous sandstone and breccia, with lesser intrusive Quartz-feldspar porphyry and minor feldspar-phyric rhyodacitic lava. In addition to these typical CVC lithologies, feldspar-pyroxene-hornblende-phyric pumice breccia and rhyolitic sills are present in some drill holes (e.g., WSP7; Allen, 1998).

In the Jones Creek area, typical CVC-“type” pumice breccia and lava hosts a package of up to 400m of shale, sandstones and crystal-rich (feldspar>quartz) volcanoclastic sandstones (Corbett, 1986; Corbett in Vicary and Dauth, 1999). It is possible that this “Jones Creek Shale Sequence” is a correlate of the Rosebery-Hercules hangingwall shale sequence. Parts of the Jones Creek Sequence are strongly sericite altered (but, without the pyrite typical of VHMS alteration) and mineralisation comprises disseminated and vein pyrite-pyrrhotite-sphalerite-galena, generally best developed in shale/sandstone units. The best overall intersection was 32m @ 0.22% Zn, 0.09% Pb in DDH JCP211 (drilled to the north of the current EL 5/1996).

Base-metal poor massive pyrite lenses are hosted in intensely sericite altered CVC close to the WSF contact, and the North Henty Fault, in the south of the licence (the Annaliese Prospect). This mineralisation has a possible Cambrian age, based on Pb isotopes (Vicary, 1997), but has extremely light S isotopes (-10 to -17‰), dissimilar to any known Cambrian mineralisation from western Tasmania. No other significant mineralisation or alteration has been located in the CVC on the licence area.

Thin mafic dykes/sills (generally <5m, but up to 80m wide) are common within the Central Volcanic Complex in the eastern part of the EL and are correlated with the tholeiitic Henty Dyke swarm.

In the South eastern corner of the tenement the CVC is separated from the Henty Fault Wedge Sequence by the North Henty Fault (Figure 2). The Henty Fault Wedge Sequence (or Henty Valley Sequence; Poltock, 1992) comprises a west facing sequence of quartz sandstone, chert, hematitic greywacke/sandstone and minor tholeiitic basaltic andesite. These lithologies are considered to correlate with units in age from the Eo-Cambrian Crimson Creek Formation to the mid-Cambrian Mount Read Volcanics (Poltock, 1992). This sequence is not considered to be VHMS prospective.

Pleistocene glacial deposits, consisting predominantly of Cambrian volcanic, Cambro-Ordovician Owen Conglomerate and Jurassic dolerite (on the eastern slopes of Mt Dundas) derived clasts, are common throughout the tenement.

5. PREVIOUS EXPLORATION

The area of EL 5/96 White Spur has a long history of ‘modern’ exploration, commencing in the 1950’s, that has been reviewed in detail by several authors (Purvis et al., 1983; Poltock and Fitzgerald, 1991; Fitzgerald, 1987; Vicary, 1997 and Corbett, in Vicary and Dauth, 1999). All previous exploration is summarised on Tables 1 and 2.

In the period 1957-1962 the area was explored by Rio Tinto Australia Exploration as part of SPL320 and ELs 4/1959 and 6/1959. From 1962 onwards the area has a complicated tenement history, dominated by ELs 9/66 (RGC), to the south, and 1/62 (EZ Co.) to the north.

EL 1/62 was initially granted to the EZ Company, but after 1978 was subject to a joint venture with the Getty Oil Development Company (GODC). EZ managed the JV from 1978-1983 at which point GODC assumed management (thus permitting exploration in conjunction with that on EL 9/66 to the south). However, in 1985 GODC’s share of the JV was sold to Little River Goldfields NL and in October 1985 a new agreement was entered into between Shell Company of Australia, Little River Resources and the EZ Company, with Shell managing and operating the tenement. In January 1988 EL 1/62 was relinquished, with the northern part of the tenement being incorporated into the “Rosebery Extension leases” (MLs 10M/88, 11M/88/ and 15M/88) and the remainder being incorporated into EL 11/85 (see below).

EL 9/66 was granted in August 1966 and in the period to 1980 was gradually amalgamated with other tenements to reach a maximum area of 637 sq. km. The tenement area was then progressively reduced through voluntary (in 1983 and 1984) and statutory (in 1985) reductions with complete relinquishment, apart from that area retained as the Henty Mine leases, in 1987. The tenement was explored by Renison Goldfields Consolidated Ltd. until 1976 when a Joint venture agreement was signed with GODC, who maintained an interest in the area until 1985 at which time their interest was sold to Little River Goldfields, later Little River Resources.

Following the statutory partial relinquishment of EL 9/66 in 1985 the vacant areas were picked up by Amoco Minerals Australia as EL 11/85. Title was then transferred to Cyprus Minerals (1985), Cyprus Gold (1988), Hudspeth and Company (1990) and finally to Arimco (1991). In this period the tenement was subject to two joint ventures, the second of which between Hudspeth and Co., Norgold and Pasminco commenced on 4 December 1990 and continued until relinquishment in 1995, with Pasminco as operators and managers of the JV.

Table 1: Exploration on the area of EL 5/96 prior to 1996

Reporting Period	Work Completed
1957-60 (King, 1960; McCarthy et al., 1960)	Helicopter borne EM in 1957 failed to locate any conductors. In 1960 the area was grided, geologically mapped and a TURAM survey completed; the 3 significant anomalies located by this survey were followed-up by Vertical EM, gravity, SP and magnetics; costeaning and drilling was recommended.
1961? (Campana, 1962)	Drilling of DDH WSP103.
1969-70 (Newnham, 1970)	Grid cut in upper part of White Spur Creek.
1971-72 (McKibben, 1972)	White Spur Area: Re-open RTAE grids, mapping and limited rock-chip sampling.
1971-72 (Reinhardt, 1972)	Turair survey, line cutting mapping and soil sampling (Dalwitz and White Spur Grids).
1973-74 (Williams, 1974)	Geological mapping, grid extensions and soil sampling on the White Spur and Dalwitz grids.
1974-75 (Stevens-Hoare, 1975)	Re-clear and extend grid, Re-log DDH WSP103, C horizon soil and rock-chip sampling and detailed mapping.
1974-75 (Williams, 1975)	Mapping and soil geochemistry on the White Spur and Dalwitz grids.
1975-76 (Stevens-Hoare, 1976)	Limited track cutting, further soil sampling (incomplete at the time of reporting) and mapping, which located a massive pyrite boulder (low base and precious metal assays).
1976-77 (Walter and Brophy, 1977)	Extended existing grid, gradient array IP and ground magnetics completed; defined 13 main IP anomalies. Soil sampling indicated black shale units have high base metals (to 1500 ppm Pb) and correspond to IP anomalies.
1977-78 (Walter, 1978)	White Spur Area: Infill gridding and EIP to follow-up anomalies; costeaning and soil sampling. Jones Creek Area: gridding, gradient array and dipole-dipole IP, ground magnetics, costeaning and associated rock-chip sampling, C horizon soil sampling and geological mapping; recommended that 2 x DDH test EIP anomalies.
1978-79 (Reid et al., 1979)	White Spur Area: Additional mapping, soil and rock-chip sampling, ground magnetics and EIP. Jones Creek Area: DDH WSP1 completed (hole drilled outside area of current EL); hole intersected weakly mineralised and altered volcanics. IP explained by zones of up to 2% pyrite.
1979-80 (Meares et al., 1980)	White Spur Area (EL 9/66): IP, Rock-chip and soil sampling to evaluate drill target on line 37.5N; DDH WSP2 tested this anomaly intersecting weak mineralisation in a black shale.
1979-80 (Mill et al., 1980)	Dobsons Creek Area (EL 1/62): Re-peg and infill previous EZ grid, gradient array IP, C Horizon soil sampling of new lines and over IP anomalies, limited geological mapping.
1980-81 (McDonald, 1981)	Dobsons Creek Area (EL 1/62): Mapping of grid and access tracks. Recommend drill testing combined IP/soil geochem target.

Table 1: Exploration on the area of EL 5/96 prior to 1996 cont....

Reporting Period	Work Completed
1981-1982 (Mathison and McDonald, 1982a; McDonald and Mathison, 1982; Mathison and McDonald, 1982b)	Dobsons Creek Area (EL 1/62): Access track completed and DDH DCP235 (161.6m) drilled to test IP/geochem. target; downhole IP survey failed due to blocked hole. Best assay 0.7m @ 1.45% Pb, 2.2% Zn, 11 g/t Ag from a fault. Concluded that there was insufficient alteration to warrant further work.
1983 (Purvis et al., 1983)	Review of prospectivity of EL 9/66; reviewed previous work and did not recommend any further follow-up on the White Spur area.
1983-1984 (Fitzgerald et al., 1984)	Jones Creek Area: Jones and Dobsons Creek cut open for mapping and sampling, roads and creeks mapped and rock-chip sampled
1983-84 (Roberts and Cartwright, 1984; Fitzgerald and Pease, 1984)	White Spur Area: Exploration managed by Getty; reviewed previous exploration; concluded that further work warranted. Completed geological mapping, rock-chip sampling and a single loop UTEM survey. Some coverage by DIGHEM survey flown in December 1983.
1984 (Fitzgerald and McNaught, 1985)	Jones Creek Area: geological mapping, re-opening of the EZ imperial grid, UTEM survey and VLF-EM; a low amplitude EM response located in Jones Creek.
1985 (Purvis, 1985)	Jones Creek Area: Drilling of DDH JC1, which failed to intersect any significant mineralisation.
1985 (Corbett, 1985)	Tasmania Department of Mines drilled a 108.7m DDH (MR1) to determine the nature and attitude of the WSF/CVC contact.
1989 (Wyatt, 1990)	Helimag survey flown over EL 9/66 and vacant ground west of EL 9/66 by RGC; several anomalies and lineaments identified in the area of EL 5/96.
1990-1991 (Poltock and Fitzgerald, 1991)	Reconnaissance geological mapping, rock geochemistry and a review of previous exploration. Mapping located additional sulphide clasts in the WSF.
1991-92 (Poltock, 1992)	Regional geological mapping (located a significant zone of Se-Fd-py alteration), lithogeochemical sampling, interpretation of gravity and magnetic data.
1992 (Dugdale, 1992)	Honours study on "Lithostratigraphy of the White Spur area, western Tasmania".
1992-93 (Quayle, 1993)	Geological mapping, collection of mag. Susc. data from outcrops, lithogeochemical sampling, interpretation of airmagnetic and radiometric data and a review of old geochemistry and IP surveys.
1993-94 (Quayle, 1994)	The WSF/CVC contact was tested by a single 430.5m DDH (YWS1); no significant mineralisation was intersected. S.G. and Mag. Susc. data collected from drill core, further lithogeochemical assaying of rock-chips and core.
1994-95 (Quayle, 1995)	Surface rock chip sampling of CVC/WSF contact in the area of DDH MR1; high AI values were recorded in some samples, however, it is unclear whether this indicates alteration or is a function of weathering.
1995 (Nunn, 1995)	Honours study on "The sedimentology, volcanology and structure of the lower Dundas Group, Hall Rivulet Canal, western Tasmania".

Table 2: Exploration on EL 5/96 from 1996 to present

Reporting Period	Work Completed
1996-1997 (Vicary, 1997)	Relogging of old drill core; Location of a pyrite occurrence at the top of the CVC (Annaliese prospect) followed up by griding (7.1 line km), soil and rock chip sampling, mapping, S and Pb Isotope analysis, ground magnetics, IP, VLF-EM and a 306.6m DDH (ANNE001) with DHEM; no significant anomalies worthy of follow-up. Roads and tracks on remainder of tenement mapped at 1:5,000 scale.
1997-98 (Vicary 1998)	20.7 line km of griding (400m spaced lines covering the tenement) followed by mapping, rock-chip sampling, CSAMT, ground mag. and VLF-EM surveys. Historical IP data digitally compiled. 3759.3m of diamond drilling (9 holes) completed with DHEM in two holes; best result 17m @ 0.77% Zn and 0.4% Pb in WSP5. S, O and Pb isotopes on surface and drill samples; reviews of stratigraphy and alteration completed.
1998-99 (Vicary and Dauth, 1999)	DHEM results for 4 holes presented; Review of Jones Creek area completed; core from Jones Creek area relogged.
1999-2000 (Vicary, 2000)	No field work completed – a review of exploration by Goldfields was presented.
2000-2002 McNeill (2002)	Partial leach soil sampling (881 samples collected) and surveying (with DGPS) of the existing 400m spaced Goldfields grid over the CVC/White Spur Formation contact located 2 anomalous zones worthy of follow-up. Minor extensions (2.6 line km) to the existing grid were cut preparatory to partial leach soil sampling.
2002-2003 McNeill (2003)	Partial leach soil sampling (559 samples) and geological mapping of infill grid (9.5 line km cut) and extensions to the Goldfields grid over the CVC/White Spur Formation contact. This work was designed to follow-up the Central [Anomaly 2] and Northern [Anomaly 1] soil anomalies. Re-assaying of soils, from areas with anomalous partial leach results, by total digest methods (145 samples analysed). Completion of DHEM surveys in DDH YWS1, WSP6 and WSP10/10A.

6. WORK COMPLETED 2003-2004 REPORTING PERIOD

6.1 Geology

To aid in interpreting the partial leach soil surveys, and to resolve some discrepancies in existing mapping and interpretations, a program of geological mapping, and compilation of existing data continued during the reporting period (in combination with work on the adjacent EL 11/2002 Dundas). Results are shown on Plans 1 and 2. No significant changes to the structural or stratigraphic interpretation were made and no significant alteration or mineralisation has been located by mapping completed during the reporting period.

Work on the remainder of the tenement is in progress and will be presented in the next annual report.

6.4 Geophysics

6.4.1 *Ground EM*

DHEM responses in DDH YWS1 and WSP6 have been interpreted to result from a conductor between the two holes (Silic in McNeill, 2003). The conductor is in the core of an unusual synclinal structure and partly overlaps PL soil anomaly 2 and was considered to warrant follow-up (McNeill, 2003). However, as the conductor was poorly defined, neither hole traversed across the response, it was recommended that a fixed-loop ground EM survey be completed with lines over the interpreted position of the conductor. To this end a two loop, 2.275 line km survey (requiring the cutting of 0.8 line km of loop lines) was completed by Zonge Engineering in January 2004. An operations report and raw data are presented as Appendix 1 and an interpretation report is included as Appendix 2. As a result of possible equipment problem no definitive interpretation of the data could be made and it is concluded that further data is required to completed the interpretation

6.4.2 *CSAMT*

In May 1997 Zonge Engineering completed a 23.5 line km controlled source audio-magnetotelluric (CSAMT) survey over the CVC/WSF contact on the tenement. An initial report was presented (Dauth in Vicary, 1998) and several interpreted features were followed-up. However, it was recommended that given the lack of ground EM coverage over the CVC/WSF contact that the CSAMT survey be reprocessed and re-interpreted (C Dauth, pers. Comm., 2001). Work on the data was in progress at the time of writing and will be included in the next Annual Report.

7. CONCLUSIONS & RECOMMENDATIONS

Work during the reporting period was impacted severely by cutbacks in exploration expenditure over the period May-October 2003 and only the following components of the programme recommended by McNeill (2003) were completed:

- A two loop (2.275 line km) ground EM survey was completed to follow-up the DHEM responses in YWS1 and WSP6. As a result of problems with data quality no final interpretation can be made.
- Some geological mapping was completed in the north of the tenement. No significant changes to the structural or stratigraphic interpretation were made and no significant alteration or mineralisation was located.
- The 1997 RGC CSAMT survey of the tenement was re-processed and was being re-interpreted at the time of writing

Based on the results summarised above it is recommended that in the next 12 months:

- Interpretation of the CSAMT data be completed.
- The DHEM anomaly between WSP6 and YWS1 and PL soil anomaly 1 be followed up by further ground EM followed by 900-1000m of diamond drilling.

The following actions, recommended by McNeill (2003) but not completed due to resource and budgetary constraints, should also be completed in the next 12 months:

- Geological mapping be completed over the remainder of the tenement.
- Data from White Spur and surrounding tenements be compiled and a regional interpretation completed of the partial leach soil geochemical data.
- Complete DHEM in those holes not previously read (WSP12).
- Commence exploration (gridding, mapping and soil sampling) of the Jones Creek Prospect (in combination with work on the adjacent ML 28M/93).
- Re-log Hole DCP235 to confirm the interpreted stratigraphic sequence and lack of alteration in the hole.

8. EXPENDITURE

Total expenditure for all work undertaken by Pasminco Rosebery Mine within White Spur EL 5/1996, for the period ending 29/02/04 was \$50,025. A detailed expenditure statement is given below. Note that costs include \$16,000 accrued (but not paid) for geophysical surveys in 2003/2004 and \$6,071 of costs associated with geophysical surveys reported in the 2003 Annual Report.

Computing	\$2,875
Drilling	\$0
Geochemical Assays	\$379
Geoscience Consultants	\$12,071
Geophysics	\$10,000
Land Environment	\$784
Depreciation, Office, Sundry	\$543
Other Contractors	\$5,046
Personnel Costs	\$10,878
Stores & Supplies	\$1,146
Travel & Accommodation	\$411
Vehicles, Plant & Maintenance	\$1,352
Administration Fee 10%	\$4,540
Total	\$50,025

9. KEYWORDS & LOCALITY

Keywords

WHITE SPUR, GEOPHYSICS – EM, GEOPHYSICS – CSAMT, GEOLOGY, WHITE SPUR FORMATION, CENTRAL VOLCANIC COMPLEX, MOUNT READ VOLCANICS

Locality

1:250,000 QUEENSTOWN SK55-5
1:100,000 SOPHIA 8014, PIEMAN 7914
1:25,000 OCEANA 3635, DUNDAS 3636

10. REFERENCES

- Allen, R.L., 1998. Review of White Spur and South Henty Exploration Projects, Western Tasmania. Unpub Volcanic resources Ltd. Report to RGC Exploration.
- Campana, B., 1962. Summary report on exploration activity in western Tasmania from Jan. 1957 to July 1962. Unpub. RTAE report.
- Corbett, K.D., 1985. The Mt Read drill hole (MR1) through the Central Volcanic Sequence-White Spur Formation contact near Howards Road, western Tasmania. *Unpubl. Rep. Dept. Mines. Tasm. 1985/55.*
- Corbett, K.D., 1986. Geology of the Henty River - Mt Read area: Tasmania Dept. Mines, Mt Read Volcanics Proj. Map 3.
- Corbett, K.D., and Lees, T.C., 1987. Stratigraphic and structural relationships and evidence for Cambrian deformation at the western margin of the Mount Read Volcanics, Tasmania. *Aust. J. Earth Sci.*, 34:45 - 67.
- Dugdale, J.S., 1992. Lithostratigraphy of the White Spur area, western Tasmania. BSc(hons) thesis, Univ. of Tas. (unpubl.).
- Fitzgerald, F.G., 1987. EL 9/66 Tyndall Area, Tasmania. Relinquishment Report June, 1987. Unpub Rep Goldfields Exploration Pty Ltd. (TCR87-2675).
- Fitzgerald, F.G., and McNaught, I., 1984. Appendix 7. Report on Halls Rivulet, White Spur and Read East. In Roberts and Cartwright, 1984 (TCR84-2137).
- Fitzgerald, F.G., and McNaught, I.S., 1985. EL 1/62 Mt Black Rosebery east Exploration progress Report, July 1984 – December 1984. Unpub Getty Oil Development Co. Report (TCR85-2516A).
- Fitzgerald, F., McNaught, I., and Goodall, D., 1984. Mt Black Rosebery east Exploration progress Report, August 1983 – June 1984. Unpub Getty Oil Development Co. Report (TCR85-2313A).
- Fitzgerald, F., and Pease, C.F.D., 1985. EL 9/66, Tyndall Area, Annual Report 1984-85. Unpub. Goldfields Exploration Pty. Ltd. Report (TCR85-2459)
- King, D., 1960. Geological report on the White Spur area, west Tasmania. Unpub. Rio Tinto Southern Pty Ltd. Report No. 36/1960.
- Mathison, I.J., and McDonald, I.R., 1982a. Mt Black Exploration Licence 1/62, Report on work undertaken 16th December 1981 – 4th May 1982. Unpub. EZ. Co. Report No. 148 (TCR82-1841).
- Mathison, I.J., and McDonald, I.R., 1982b. Mt Black Exploration Licence 1/62, Report on work undertaken 4th May 1982 – 20th November 1982. Unpub. EZ. Co. Report No. 158 (TCR83-1841).

- McCarthy, E., Maddocks, N., and Pinney, R., 1960. Geophysical investigations White Spur area. Unpub. Rio Tinto Southern Pty Ltd. Report No. 36/1960.
- McDonald, I.R., 1981. Mt Black Exploration Licence 1/62, Report on work undertaken July 1980 – June 1981. Unpub. EZ. Co. Report No. 142 (**TCR82-1738**).
- McDonald, I.R., and Mathison, I.J., 1982. Mt Black Exploration Licence 1/62, Report on work undertaken 1st July 1981– 15th December 1981. Unpub. EZ. Co. Report No. 144 (**TCR82-1840**).
- McKibben, J.P., 1972. Annual Report Mt Tyndall EL 9/66 1971-72. Unpub Rep Consolidated Syndicate / Mt Lyell Mining and Railway Co Ltd. (**TCR72-882**).
- McNeill, A.W., 2002. White Spur EL 5/1996 Progress Report for the period ending 5 March 2002. Unpub. Pasminco Rosebery Mine Report WS6.
- McNeill, A.W., 2003. White Spur EL 5/1996 Progress Report for the period ending 5 March 2003. Unpub. Pasminco Rosebery Mine Report WS9.
- Meares, R.M.D., Walter, A.C., and Hutton, M.J., 1980. EL 9/66 Annual Report 1979-80. Unpub Rep Mt Lyell Mining and Railway Co Ltd / Getty Oil Development Co Ltd / Consolidated Goldfields Aust Ltd. (**TCR81-1519**).
- Mill, J.H.A., McDonald, I.R., and Weeden, R.J., 1980. Mt Black Exploration Licence 1/62, Report on work undertaken 30th June 1979 – 30th June 1980. Unpub. EZ. Co. Report No. 134 (**TCR80-1468**).
- Newnham, L.A., 1970. Annual Report on Mt Tyndall area - EL 9/66 1969-70. Unpub Rep Mt Lyell Mining and Railway Co Ltd / Renison Ltd. (**TCR70-654**).
- Nunn, T., 1995. The sedimentology, volcanology, and structure of the Lower Dundas Group, Halls Rivulet Canal, western Tasmania. BSc(hons) thesis, Univ. of Tas. (unpubl.).
- Poltock, R.A., 1992. Geology of the Henty Fault Wedge, Western Tasmania. M. Econ. Geol. Thesis, Univ. of Tas. (unpubl.)
- Poltock, R.A., 1992. Yolande EL 11/85 and Yolande River EL 25/91 Annual Report. June 1991 - June 1992. Unpub Rep Pasminco Exploration Pty Ltd. (**TCR92-3376**).
- Poltock, R.A., and Fitzgerald, F.G., 1991. EL 11/85 Yolande JV. Annual report to twelve months to July 1991. Unpub Rep Pasminco Exploration Pty Ltd. (**TCR91-3278**).
- Purvis J.G., 1985. EL 1/62 Mt Black, Rosebery east Exploration Progress Report, January – August 1985.. Unpub report to G.O.D.C (**TCR85-2516E**).
- Purvis, J.G., Jones, M.T., Fitzgerald, F.G., and Poltock, R., 1983. A Geological Review of the Tyndall Exploration Licence 9/66, Western Tasmania. Unpub Rep Goldfields Exploration Pty Ltd / Getty Oil Development Co Ltd / Mt Lyell Mining and Railway Co Ltd. (**TCR83-1995**).

- Quayle, P.M., 1993. Annual Report Yolande EL 11/85 and Yolande River EL 25/91. Unpub Rep Pasmaenco Exploration Pty Ltd. **(TCR93-3477)**.
- Quayle, P.M., 1994. Annual Report for the year ending June 1994. Yolande JV EL 11/85 and Yolande River JV EL 25/91. Unpub Rep Pasmaenco Exploration Pty Ltd. **(TCR94-3590)**.
- Quayle, P.M., 1995. Yolande EL 11/85 Joint Venture Annual and Final Report August 1985 - August 1995. Unpub Rep Pasmaenco Exploration Pty Ltd. **(TCR95-3754)**.
- Reid, K.O., Meares, R.M.D., Walter, A.C., Hutton, M.J., and Drake, G. 1979. EL 9/66 Annual Report 1978-79. Unpub Rep Mt Lyell Mining and Railway Co Ltd / Getty Oil Development Co Ltd. **(TCR79-1384)**.
- Reinhardt, D., 1972. Report on Exploration in EL 1/62 Mt Black during 1971-1972. Unpub. EZ Co. Report 108 **(TCR72-0864)**.
- Roberts, P.A., and Cartwright, A.J., 1984. EL 9/66 Tyndall Area Annual report 1983/84. Unpub Rep Goldfields Exploration Pty Ltd / Getty Oil Development Co Ltd / Mt Lyell Mining and Railway Co Ltd. **(TCR84-2137)**.
- Stevens-Hoare, N.P., 1975. Annual Report EL 9/66 (Mt Tyndall) 1974-75. Unpub Rep Mt Lyell Mining and Railway Co Ltd / Renison Ltd / Consolidated Goldfields Aust Ltd / Consolidated Syndicate. **(TCR75-1149)**.
- Stevens-Hoare, N.P., 1976. Annual Report EL 9/66 1975-76. Unpub Rep Mt Lyell Mining and Railway Co Ltd / Consolidated Goldfields Aust Ltd / Renison Ltd. **(TCR76-1171)**.
- Vicary, M.J., 1997 Annual Report March 1996 - March 1997. EL 5/96 White Spur. Unpub. RGC Exploration Report **(TCR97-4007)**.
- Vicary, M.J., 1998 Annual Report March 1997 - March 1998. EL 5/96 White Spur. Unpub. RGC Exploration Report **(TCR98-4128)**.
- Vicary, M.J. and Dauth, C., 1999 Annual Report March 1998 - March 1999. EL 5/96 White Spur. Unpub. RGC Exploration Report **(TCR99-4263)**.
- Vicary, M.J., 2000 Annual Report March 1999 - March 2000 EL 5/96 White Spur. Unpub. RGC Exploration Report.
- Walter, A.C., and Brophy, P., 1977. Annual Report EL 9/66 1976-77. Unpub Rep Mt Lyell Mining and Railway Co Ltd / Getty Oil Development Co Ltd. **(TCR77-1224)**.
- Walter, A.C., 1978. EL 9/66 Mt Tyndall Annual Report 1977-78. Unpub Rep Mt Lyell Mining and Railway Co Ltd / Getty Oil Development Co Ltd. **(TCR78-1286)**.
- Williams, R.E., 1974. Progress Report on Exploration of EL 1/62 (Mt Black) during 1973/74. Unpub. EZ. Co. Report No. 114 **(TCR74-1034)**.
- Williams, R.E., 1975. Progress Report on Exploration of EL 1/62 (Mt Black) during 1974/75. Unpub. EZ. Co. Report No. 124 **(TCR75-1126)**.

Wyatt, B., 1990. Interpretation of aeromagnetic data from EL's 42/82 (Zeehan), 9/66 (Henty), 101/87 (Dundas), 13/88 (Moore's Pimple) and Renison Mines Lease. Report for RGC Exploration Pty Ltd.