

ANNUAL REPORT ON EXPLORATION FOR THE PERIOD ENDED 11TH
MAY 2011, ARTHUR RIVER, NORTHWESTERN TASMANIA

TASMANIA NORTH WEST	1:250,000
INGLIS 8015	1:100,000
ARTHUR RIVER 7915	1:100,000

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Title:	Annual Report on Exploration for the Period Ended 11 May 2011, Arthur River, northwestern Tasmania
Report No:	EL102005_2011_AnnualReport.pdf
Date:	May 2011
Authors:	M.H.Wheeler, H.Salmon
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BIBLIOGRAPHIC DATA SHEET

Project Name: Arthur River

Tenement Number: EL10/2005

Category: Category 1 - Metallic Minerals, Atomic Substances

Tenement Operator: Red Rock Resources PLC

Tenement Holder: Regency Resources Limited

Report Type: Final

Report Title: Report on Exploration for Period the Ended 5th May 2011, Arthur River, northwestern Tasmania.

Report Period: 12th May 2010 – 11th May 2011

Authors: M.H.Wheeler, H.Salmon

Date of Report: May 2011

1:250,000 Map Sheet(s): Tasmania North West (SK55-20)

1:100,000 Map Sheet(s): Inglis (8015), Arthur River (7915)

Target Commodity(s): Iron Ore

Keywords: Arthur River, V-Bend, Multi-element Assaying, Reverse Circulation Drilling, Assays, Rehabilitation

Prospects: V-Bend

List of Assays: Al₂O₃, CaO, K₂O, MgO, MnO, Na₂O, SiO₂, TiO₂, Ba, Cl, Co, Cr, Cu, Fe, Ni, P, Pb, S, Sn, Sr, V, Zn, Zr, LOI

ABSTRACT:

Location:

The Arthur River Project is located in northwestern Tasmania, approximately 30 km southwest of Burnie. The current project comprises a single exploration licence EL10/2005 covering a total area of approximately 61 km².

Geology:

The tenement features a broad 10km wide NE-SW trending zone of increasing schistosity and metamorphism termed the Arthur Lineament. It is of Cambrian age and forms the eastern margin of the Mesoproterozoic and Neoproterozoic Rocky Cape Block. Also known as the Arthur Metamorphic Complex, it comprises both the allochthonous Bowry Formation and Reece Amphibolite, and the autochthonous Ahrberg and Rocky Cape Groups

Rationale:

During November /December 2010 the company carried out a drilling programme to test a magnetic anomaly within the Arthur River Tenement in Tasmania. This area, along with the Keith River gossan, had been referred to historically as having potential to host similar mineralisation styles to those found at the more southerly Savage River mine. The company thought to test this hypothesis on the more accessible area at Arthur River.

Work Completed:

Mineral Exploration over the Arthur River exploration licence during the reporting period included the following activities:

- Reverse Circulation Drilling
- Multi-element Assaying of 189 samples from 5 drillholes
- Rehabilitation
- Extension applied for

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Appendix I: Historical Report Spreadsheet

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1.0 INTRODUCTION

This annual report details mineral exploration activities carried out by Red Rock Resources Plc on the Arthur River Project during the reporting period from 12 May 2010 to 11 May 2011. The Arthur River Project comprises a single granted exploration licence situated approximately 30 kilometres southwest from the port of Burnie in northwest Tasmania.

Exploration of the Arthur River Project licence during the current reporting period included the following activities:

- RC Drilling – 5 Holes for a total of 747.5 metres
- Multi-element Assaying of RC Drill Samples –
- Rehabilitation of drilling sites
- Application for Extension

1.1 Exploration Objective

Following a recent review of the Arthur River project exploration licence EL10/2005 by Donnes (2010) a number of airborne magnetic targets were prioritised for drill testing. The priority target identified (“T1”) is a 3km long x 0.3km wide northeast trending magnetic anomaly the centre of which is located along strike from the Savage River Magnetite Mine. The primary exploration target was magnetite hosted within amphibolite analogous to the Savage River deposit setting.

1.2 Tenure

Table 1: Exploration Licence EL10/2005 Details

Lease	Registered holder	Legal Units	Legal Area	Area (km ²)	Application Date	Grant Date	Expiry Date	Expenditure Commitment
EL10/2005	Regency Resources Ltd	Block	36	61	23/01/2007	12-May-06	11-May-11	\$73,200

1.3 Location and Access

The Arthur River Project comprises a single exploration license, EL10/2005, situated approximately 30 kilometres southwest from the port of Burnie northwest Tasmania. EL10/2005 covers an area characterised by rugged topography. The majority of the area is designated State Forrest which includes a number of informal reserves with the remainder comprising freehold land (5%).

Access to the Arthur River Project tenement area is generally good to the Keith River Bridge, being 50km from Burnie airport (Wynyard) via Takone, the last 20km being unsealed. The partially collapsed (unusable) Keith River Bridge is 2.2km beyond Farquhars Bridge that crosses the Arthur River (beyond locked gate), rated to maximum 6 tonnes gross, being 5.4km southwest of the turnoff from Pruana Road. A fine weather deep ford at the Keith River Bridge is available for appropriate large vehicles. Forging the Arthur River may be difficult at any time. Forestry roads around the tenement are good though hampered by a washed out bridge at 5 441 830mN 369 560mE on Relapse Link Road, and at the Keith River,

along with overgrown roads on both northeast trending sections of Champion Road (Salmon, 2007).

Access to the V-Bend prospect is via the sealed Murchison Highway then to west via turn-off km from Yolla. The road is sealed to Takone and is thence macadamised.

The climate is characterised by high rainfall of approximately 2500mm which occurs mainly between May to October.

1.4 Regional Geology

EL10/2005 straddles the Trowutta and Burnie 1:50,000 geological map sheets. More recently published 1:25,000 scale digital mapping series provided coverage on the mostly on the Folly sheet with the northern portion of the tenement covered by the Milabena sheets. Explanatory notes are only available for the Burnie 1:50,000 sheet which was published in 1967.

The area covers rocks of the Cambrian (510Ma) Arthur Lineament. The Arthur Lineament is a 8km wide x 110 km northeast trending high-strain metamorphic fold-thrust belt. Structural interpretation suggests that there were three main deformation events which involved south directed transport (Holm *et al.*, 2003). Deformation involved early isoclinal folding synchronous with thrusting followed by folding and later folding and steep west dipping thrusting.

The Arthur Lineament (or Arthur Metamorphic Complex) divides the weakly deformed Neoproterozoic Rocky Cape Group in the west from the time equivalent Burnie and Oonah formations in the east. Rocks of the Arthur Lineament comprises both allochthonous Bowry Formation and the para-autochthonous eastern Ahrberg Group (Holm *et al.*, 2003). The Bowry Formation is considered to be allochthonous due to its notably higher metamorphic grade compared with surrounding rocks. Emplacement of the Bowry Formation is thought to have occurred as a result of early deformation. Bowry Formation rocks include mafic schist, amphibolites, mettagabbro, massive and laminated magnetite and minor deformed granitoids. The mafic lithologies are intercalated with minor metasedimentary rocks. Mafic meta-igneous rocks show strong Fe, Ti and V enrichments. The Bowry Formation is host the Savage River magnetite deposits.

1.5 Prospect Geology

Excellent exposure is afforded by various forestry road cuttings. Much of the forestry roads have been constructed using locally sourced aggregate. In some of the roads Precambrian basement rocks are outcropping and provide additional exposure.

The V-bend prospect is situated within a current day topographic low. Drilling and field observations of outcrop confirm that the current day topography is coincident with a palaeotopographic low in the Precambrian basement. Inspection of outcrop along road cuttings and in the basement of the roads was undertaken during GPS track mapping of access road during the RC drilling program.



Figure 1: Exposures located on Relapse Creek Road, west of drilling traverse (a) MGA94: 368,483mE, 5,442,521mN strongly weathered iron rich unit (meta-dolerite?) with distinct octahedral magnetite (b) MGA94: 368,532mE, 5,442,381mN quartz-muscovite schist outcropping in benched roadside quarry used for road construction.

2.0 REVIEW OF PREVIOUS WORK

Approximately 37 MRT open file reports have identified and tabulated (Appendix I) as being relevant to E10/2005 Arthur River. The most relevant reports have been inspected to extract relevant pieces of information. A number of key reports are recommended as best summarising past activities.

Alluvial gold mining preceded opening of the Victory Mine in the early 1890s. Although worked for copper via an adit, no significant production is recorded and this area is excluded from the tenement. Chalcopyrite and malachite occur with hematite at the contact of dolomite and schist. Minor gold is also present (McNeil, 1961; 70_632).

Magnesite was first discovered by P B Nye in 1925 in the Lyons River- Keith River areas. A joint venture between Mineral Holdings Australia (MHA) and CRA in 1982 established drill defined resources of moderate to high grade magnesite at Lyons River and Keith River (refer to section "Regional Geology and Major Deposits", above).

In 1965 an extensive regional programme of stream sediment sampling was completed by Picklands Mather and Co International. Some re-sampling of anomalies followed, then no further work was undertaken. Original data are no longer held in open file by MRT.

In 1970 MHA commenced exploration by ground checking aerial-magnetic anomalies, especially near the old Victory Mine. MHA later formed joint ventures with CRA. A large gossan at Keith River was investigated in some detail. The extensive gossanous rock contains up to 22% iron in the form of limonite and hematite, but is reported to be low in elements such as copper and gold.

Weathering and gossan development here is deep compared to normal Tasmanian weathering profiles; there is evidence that the gossan is Permian in age. The "sulphide horizon" as mapped is a tightly folded sequence interpreted to be faulted off adjacent to alluvium cover to the north (83_2039, Appendix I). An aeromagnetic anomaly 2.4 kilometres downstream from the Old Victory Mine was found to be associated with an amphibolite unit carrying quartz - carbonate - pyrite - chalcopyrite veins, associated with a small irregular magnetite body (72_868). To the south the Keith River Gossan appears to be faulted against Permian. Similar amphibolitic sequences are again seen south in the Lyons River, outside the current tenement.

In 1971 CRA drilled two diamond holes, targeting this gossan for Besshi style VMS mineralization. They then withdrew from the prospect (71_839). Hole KR1 had poor recoveries to 100m and a total depth of 241.2m (797 feet). A "sulphide horizon" was interpreted at 91-157m. The only significant magnetite was 1m at 302-305 feet and 30cm at 310-311 feet. Iron assaying about 20% over 9m was also sampled at 368-398 feet, but this occurs largely as pyrite. Hole KR2 was completed to 165m. A "sulphide horizon" was interpreted at 61.9-79.5m. Magnetite bands were intersected at 205'9"-208' and 209-210', 217-219', with up to 50% magnetite-pyrite over 12m from 67.7m (222-262'). The last 20m of the hole is logged (in 1983) as Permian, in conflict with all surface mapping. Holes were drilled to the south and northwest, respectively. Only hole KR1 was assayed for Fe and S at this time. Drilling showed that the primary source material was lenticular stratiform pyrite with minor magnetite and trace chalcopyrite hosted in dolomite, siltstone, shale, quartzite

and amphibolite, although aero-magnetics suggests a magnetic component over 1.5km in extent. Copper and zinc content was less than 1500ppm, and gold content from composite 30m samples was less than 1.2g/t Au. There appears to have been no further drilling of this horizon once the absence of copper, lead and zinc was established. The holes were relogged and area re-mapped in 1983, but no significant new information was provided.

In 1973 Esso Exploration and Production Australia Incorporated (Esso) flew an extensive Input EM survey, followed by regional and local geological reconnaissance, failing to delineate areas warranting further exploration.

From 1979 to 1986 Geopeko, initially solely and later in joint venture with CRA, conducted exploration. Targets included stratiform tungsten mineralization and shale hosted lead-zinc mineralisation. Work included reprocessing the Esso Input EM survey, conducting a magnetic and radiometric survey, locating no unexplained anomalies. Follow-up work included geological mapping, ground geophysics and stream sediment and bedrock geochemistry. Anomalous gold was found near the Arthur River at 5 442 000mN 367 300mE (300ppb in -80 mesh samples and 29ppb in cyanide leached samples) but despite shallow auger drilling the source was not located.

Most of CRA's efforts were focused on magnesite. They found that the magnesite horizons carried traces of gold and platinoids. Gold values ranged up to 0.4g/t, platinum to 0.015g/t and palladium to 0.020 g/t. The gold was assumed to be very fine grained because it was not observed in thin section. Reports 83_2036 (Appendix III), 84_2214, 85_2334 detail work undertaken by CRA and MHA on E43/70 Arthur River. The focus of this work was the magnesite potential of the Keith River - Arthur River area. In this work it was suggested that the Keith River gossan was a correlative of the Savage River pyrite - magnetite deposits.

In 1990 Geopeko again was active in a search for gold and base metals including stratiform Cu-Zn-Ag (Mt Isa - McArthur River type) and stratiform copper-zinc deposits of the Besshi Type. Work included a geophysical review (aeromagnetics and gravity) and water geochemistry. Reports 91_3247, 92_3370, 93_3529 conclude that water sampling gave spurious results. Geopeko collected 25 rock chips along Cann Creek. Highest assay was 0.06 g/t Au, not considered significant.

In 1987 Betoota Pty Ltd (and others), held the area but conducted only a desk review of previous exploration and a geological interpretation based on aeromagnetics. Similarly in 1994 Allstate Exploration NL (Allstate) did interpretative work on a 1993 government conducted magnetic survey, but no ground exploration follow-up was done.

In 1996 Goldstream / Titan carried out only a few stream sediment samples before withdrawing from the area. In 2001 MRT covered E10/2004 with heli-borne geophysics at 75m height as part of a much larger study, defining the area of current interest.

Individual Prospect Summaries

Arthur River	Alluvial Gold (outside tenement)
Deposit Id	406
Name	Arthur River
Type	Area of alluvial workings

Operational Status	Mineralised area
Commodity Type	Metals/elements
Commodity	Gold
Location	367 380mE 5 442 140mN
Deposit Size	Not determined
Host Rock Ages	Cenozoic
Form	Placer
Commodities	Gold
Exploration	Drilling, Geochemical surveys, Prospecting

(Source: MRT Mine database)

Principal Reports

- TR5_46_60: Geological Reconnaissance of part of the Arthur River Area
- 85_2341: Rapid River E1/79 North West Tasmania, Progress Report on Exploration, February 1984-February 1985. The enclosed Plan shows location of relevant anomalous Geopeko and CRA stream sediment samples, suspected but not confirmed as being alluvial in source.
- 90-3146: Placer Exploration, considered that a high Sn in stream sediment samples indicates Arthur River flood contamination from the upstream Mt, Bischoff source.
- 86_2533: Rapid River E1/79 North West Tasmania, Progress Report on Exploration, February 1985-February 1986.

Keith River Gossan

Deposit Id	429
Name	Keith River Gossan
Aliases	Keith Iron, Keith River Ironstone
Deposit Type	Mine or Prospect
Operational Status	Prospect
Commodity	Iron ore
Description	Numerous limonitic outcrops.
Locality	Near the junction of Farquars Road and the Keith River.
Location	368 500mE 5 438 500mN
Deposit Size	Not determined
Host Rock Ages	Proterozoic
Form	Stratiform
Rock Type	siltstone
Gangue	Hematite, Limonite, Magnetite, Pyrite
Exploration	Drilling, Geochemical surveys, Geological mapping, geophysical surveys

(Source: MRT Mine database)

- 70_0632: Progress Reports on Exploration on SPL 56, Arthur River District, North-Western Tasmania, During 1970

- 72_0868: Progress Reports on Exploration of S.P.L. 56, Arthur River District, North-Western Tasmania During 1971.
- 72_0904: Progress Reports on Operations in E.L. 43/70, Arthur River, Tasmania During 1970-1971
- 78_1243: Report image page 11 shows sketch map of Keith River Gossan
- 84_2214: E.L. 43/70 Arthur River Area, Report on Exploration for 12 Months to 15th October, 1984

Extract from McPherson, Duncan & Assoc (2002-UR2002_12) Keith River gossans

Key Reports

A key report is defined as a report that concisely or best summarises and references preceding work or covers significant new work relevant to the current tenement. Of the approximately 37 open file MRT reports selected for this section the following provide the best starting point for a reader. The reference is to the MRT Report No. (year_report).

- 72_0904: CRA geological mapping of Keith River Gossan and drilling of holes KR1 and 2.
- 83_2036: CRA relogging of Keith River Gossan holes and regional outcrop mapping
- 96_3676: Allstate Exploration. Brief review of past work. Outlines the limited work completed, including aeromagnetic interpretation.
- 98_4218: Goldstream Mining, Titan Resources. Stream sediment sampling programme. No significant results within the current area of interest.

3.0 EXPLORATION COMPLETED DURING REPORTING PERIOD

3.1 Drilling

Reverse circulation drilling was undertaken by eDrill Pty Ltd of Wynard using a PRD-2000 top-drive rotary drill rig mounted on a Volvo FM12 8x4 wheel drive prime mover. The drill rig was equipped with a custom KL-950 head drive and KL automatic rod handler. The rig employed a Cummins 2-stage air compressor rated at 1100cfm/350psi, mounted on a Mercedes Benz Axor 4x4 wheel drive carrier. Drilling was carried out on a 10 hour day shift basis.

5 Holes were completed collecting a total of 189 samples. These were bagged and sent to Ultratrace in Perth for assaying (Appendix II-Digital data).

All holes were drilled employing conventional six(6) metre long, 4-inch (102mm) diameter drill rods equipped with 54 mm ID inner tubes. Holes were collared using an 8 inch (203mm) RAB collaring hammer. The collar was cased using 150mm diameter Class-9 uPVC and cemented using quick setting gypsum cement and AB foam. The remainder of the hole was

drilled either using a combination of a standard 5 ½ inch (140mm) face-sampling tungsten buttoned RC bit or a tricone roller-bit. The tricone roller bit was only employed in the relatively softer upper part of the Permian siltstone sequence. All holes were drilled at -60 inclination. Hole details are provided in Table.

At the completion of each hole the PVC collar casing was cut below ground level and capped with a standard PVC end cap. A 50cm long metal star picket was driven into the ground beside the collar prior to backfilling the void level with the surface, allowing the collar to be detected at a future date. In addition the drillhole details such as Hole ID, UTM co-ordinates (MGA94), inclination, magnetic azimuth and end-of-hole depth was recorded on the wooden grid peg located at the collar location.

Table 2: RC Drilling Program Completion Details

Duration:	24-Nov-2010 to 18-Dec-2010
No. Holes:	Five (5)
No. Metres (m):	747.5 m
Hole Depth	129m (Min) 164m (Max) 149.5m (Ave)
Hole ID's:	VBRC001-005
Rig Type:	PRD-2000 Top Drive RC Drill Rig rated at 100cfm/350psi
Drill Type:	RC Hammer/Tricone Roller
Hole Diameter:	5.5''(140mm) with 8'' inch (203mm) collar
Drill Rods:	4'' (102mm) OD 56mm ID Inner Tube
Casing:	Collars cased with between 1-6m of 150mm Class-9 Bell End Plain uPVC
Sampling:	All drill cuttings sampled at 1m intervals downhole from directly under rig cyclone. Composite sampling (nominal 4-metre) completed on bedrock samples.
Target Commodity:	Iron
List of Assays:	Al ₂ O ₃ , CaO, K ₂ O, MgO, MnO, Na ₂ O, SiO ₂ , TiO ₂ , Ba, Cl, Co, Cr, Cu, Fe, Ni, P, Pb, S, Sn, Sr, V, Zn, Zr, LOI
Rehabilitation Completed:	April 2011

Table 3: RC Drillhole Completion Details

Hole_ID	Drill Type	MGAz55 East	MGAz55 North	Inc.	Azi (Grid)	Azi (Mag)	Start Date	End Date	Final Depth (m)
VBRC001	RC	5441882	369502	-60	320.5	308.5	24-Nov-10	28-Nov-10	147
VBRC002	RC	5441920	369411	-60	309	297	28-Nov-10	3-Dec-10	164
VBRC003	RC	5441790	369534	-60	318.5	306.5	3-Dec-10	10-Dec-10	153
VBRC004	RC	5441914	369456	-60	326	314	11-Dec-10	14-Dec-10	154.5
VBRC005	RC	5441909	369417	-60	140	128	14-Dec-10	18-Dec-10	129



Figure 2: RC Drilling of V-Bend Prospect (a) Drillhole VRBRC001 (b) Drillhole VBRC005

Drilling conditions were generally dry through the Permian cover sequence. The standing water level (piesometric level) in a number of holes was observed to be indicating that the Permian siltstone aquifer is a confined aquifer.

Generally good sample recoveries were observed for all samples. Noticeably smaller recoveries were observed for basement samples relative to upper Permian sedimentary units. The smaller recoveries are most likely due to the much more abrasive nature of the metamorphic host rocks and the wet drilling conditions which leads to more of the drill cuttings to be washed out the outside return rather than recovered up the inner sample tube.

3.2 Drillhole Collar Information

The drill rig was positioned using a forward sighter peg placed on the designed azimuth from the proposed drillhole collar peg. The azimuth of the sighter peg was determined using a sighter compass. Once the drill rig was in position the azimuth of the rig was again measured using the sighter compass and recorded. Magnetic azimuths were converted to MGA94 grid by applying a correction of +12.00 degrees which was obtained by and applying a Grid Convergence of -1.02 degrees determined using Readfearn's Formulae and a declination of +13.02 which was calculated using the Australian Geomagnetic Reference Field model (AGRF10).

The planned collar inclination was measured by the driller using a standard spirit level clinometer placed on the side of the rigs mast.

All drill hole collar locations were recorded using a Garmin GPSMAP 60CSx handheld GPS unit subsequent to the completion of each drillhole. Co-ordinates were recorded as UTM Easting and Northings (Zone 55) in GDA94 datum and elevation was recorded using the in-built barometric altimeter. The estimated error of precision (EPE) was generally +/- 3 metres for UTM Easting and Northings.

3.3 Sampling

One-metre samples were collected directly from beneath the drilling cyclone which was mounted on a dedicated support truck. Samples were either collected directly into the plastic sampling bag (when dry) or were first collected in a rubber bucket and transferred to plastic bags (when wet). Water saturated samples had to be decanted prior to transferring the sample from the rubber bucket into the plastic sample bags. Samples were laid out sequentially along the shoulder of the vehicular track so as to not restrict vehicle access.

Four-metre composite samples of the one-metre rig samples were collected into calico bags using a PVC sampling spear. Calico sample bag weights were estimated to weigh between 3-6 kg.

3.4 Magnetic Susceptibility Readings

Magnetic susceptibility readings of all one-metre rig samples were undertaken using Geo Instruments GMS-2 high sensitivity portable hand-held magnetic susceptibility meter shown in Figure 3. Specifications of the magnetic susceptibility metres are provided in Table 4.

Magnetic susceptibility readings were routinely undertaken on one-metre samples. Readings were generally taken on the side of the green plastic bag once it had been laid out at the drill site.



Figure 3: GMS-2 Magnetic Susceptibility Unit

Table 4: GMS-2 Magnetic Susceptibility Metre - Specifications

Units	SI or CGS
Sensitivity	1 x 10 ⁻⁵ SI units
Sensor	760 Hz (low to avoid effects of high conductivity in some samples)
Coil Type	Ferrite
Measurement frequency	10 times per second
Response Time	Less than 1 second
Range	1 x 10 ⁻⁵ to 9.999 SI units – auto ranging
Power Source	2 x 1.5 Volts AA Alkaline Batteries
Operating Conditions	0-50 C and 10-90% Relative Humidity
Dimensions	155mm L x 84mm W x 34mm H
Weight	300 grams

3.5 Geological Logging

Each hole was geological logged on a one-metre interval basis. A sample was collected from each one-metre plastic sample bag in metal sieves. Each sample was sieved (for dry sample only) and thoroughly washed. Representative chips of the sample were transferred to a plastic chip tray which labelled with the interval and drill hole number.

3.6 Multi-element Assaying

All composite spear samples were submitted to Ultratrace of Perth for chemical assaying. Samples were transported by Tas Freight to Melbourne via ship and then transported by road to Perth.

A total of 189 composite samples, were submitted for sample preparation, of which 84 (basement lithologies) samples were chemically analysed. Samples were processed as a single batch.

No external analytical standards or blanks were included with the samples. A total of 4 (4.8%) laboratory repeats and 14 (16.6%) internal laboratory standards were analysed. All analytical QA/QC information is presented digitally in Appendix II.

3.7 Rehabilitation

Scott Williams of Specialised Equipment Hire rehabilitated the site during April 2011. Photographs were submitted to MRT of work completed.

4.0 CONCLUSIONS

The rationale for drilling along the 'V Bend Prospect' was based upon a geophysical review carried out by Grant Donnes of Dex Geoscience (Perth). The primary target was the area around the Keith River gossan but the infrastructure issues were too major to attempt at this time, therefore, the Company decided to drill the secondary target identified. 5 holes were drilled and magnetite was encountered at approximately 90 metres but the grade after assaying proved to be non-economic.

5.0 OUTCOMES

To allow for further exploration focussing on the Keith River Gossan the Company applied for an extension to term of tenure. However, due to the uncertainty of the Tarkine policies it was decided to surrender the tenement

REFERENCES

DONNES, G. (2010). Arthur River Project. (*Unpub*).

HOLM, H., CRAWFORD, A. J., and BERRY, R.F., (2003). Geochemistry and tectonic settings of meta-igneous rocks in the Arthur Lineament and surrounding area, northwest Tasmania. *Australian Journal of Earth Sciences* **50:6**, 903-918.

SALMON, H. (2007) E10/2005 Arthur River Project, Project Review (*Unpub*).

APPENDIX I

HISTORICAL REPORT SPREADSHEET

**ARTHUR RIVER PAST EXPLORATION
1966-1984**

Report no	Title	Tenements	Companies	Authors	Reportdate	NfVms	Structure	Ggrphcic	Map_name	Deposits	Minerals	Types	Keywords	Xplrmtths	Annotation
66_0438	Report on Planet Mining Co Tasmanian Phosphate Leases	EL20/1965, EL21/1965, EL26/1965	Cundill Meyers and Associates Proprietary Limited, Planet Mining Company Proprietary Limited	Watts, T.R.	01/01/1966	1	23PP, 2 APPX, 5 TABLES, 54 PLATES, 3 PLANS,	Burnie, Devonport, Flinders Island, Furneaux Group, King Island, Marrawah, Smithton	Currie, Forth, Hellyer, Welcome		Phosphate	Geochemistry, Geology, Indust. Minerals, Misc and Fuels, Surface mapping	Cainozoic Sediments, Smithton Trough(S)	Rock Geochemistry;	The marine Tertiary rocks of all leases show a dominant limestone lithology but with no above background phosphate values. Relinquishment is recommended for the King and Flinders Island leases and more work is recommended in the Palaeozoic rocks near Sm
70_0632	Progress Reports on Exploration on SPL 56, Arthur River District, North- Western Tasmania, During 1970	SPL56	Mineral Holdings Australia Proprietary Limited, Tomic Exploration Proprietary Limited	Hughes, T.D., Nye, P.B.	01/03/1970	1	7 REPORTS, AVERAGE 5PP, 14 PLANS,	Arthur River, Keith River, Lyons River, Wedge Creek	Meunna	New Victory	Base Metals, Dolomite, Hematite, Iron, Limonite, Magnesite, Magnetite, Ochre, Pyrite	Air magnetic, Bed-rock, Geochemistry, Geology, Geophysics, Misc and Fuels, Petrology, Rock-chip, Surface mapping	Rocky Cape Region(S)	Aeromagnetics; Geological Mapping; Rock Geochemistry;	This literature review of work on SPL 56, including recommendations for further investigations, indicates the presence of oxidised iron formation with pyrite. Preliminary aeromagnetic results require ground surveillance, although little hope of economic
71_0839	Final Report on the Keith River Prospect E.L. 43/70 Northwest Tasmania	EL43/1970	CRA Exploration Proprietary Limited, Mineral Holdings Australia Proprietary Limited, Tomic Exploration Proprietary Limited	Porter, T.M.	01/12/1971	1	17PP, 10 TABLES, 9 PLANS,	Arthur River, Keith River, Lyons River, Takone	Meunna		Base Metals, Silver	Analysis, Bed-rock, Diamond, Drilling, Geochemistry, Geology, Logs, Soil (A,B,C horiz), Surface mapping	Arthur Lineament, Tertiary Basalt	Soil geochemistry; Geological Mapping; Drilling;	Diamond drilling indicates that the gossan represents a stratiform pyritic occurrence. No economic base metal mineralisation was encountered in drill core. No further exploration on the EL is planned.
72_0868	Progress Reports on Exploration of S.P.L. 56, Arthur River District, North- Western Tasmania During 1971.	SPL56	Mineral Holdings Australia Proprietary Limited	Nye, P.B.	01/03/1971	1	3PP,	Arthur River, Keith River, Lyons River	Meunna	Arthur R, New Victory	Base Metals, Chalcopyrite, Copper, Dolomite, Hematite, Iron, Limonite, Magnesite, Magnetite, Ochre	Air magnetic, Geochemistry, Geophysics, Rock-chip	Amphibolite, Arthur Lineament, Mafic Intrusives, Magmatic Mineralisation, Replacement Mineralisation, Rocky Cape Region(S), Vein Mineralisation	Aeromagnetics; Rock Geochemistry;	Three progress reports summarising investigations into various prospects.
72_0904	Progress Reports on Operations in E.L. 43/70, Arthur River, Tasmania During 1970-1971	EL43/1970	CRA Exploration Proprietary Limited, Mineral Holdings Australia Proprietary Limited, Tomic Exploration Proprietary Limited	Nye, P.B., Porter, T.M.	01/01/1971	1	8PP,	Arthur River, Atlas Creek, Keith River, Preolenna	Meunna	Atlas, Keith Iron	Base Metals, Chalcopyrite, Coal, Copper, Dolomite, Galena, Iron, Lead, Magnesite, Magnetite, Pyrite	Air magnetic, Analysis, Diamond, Drilling, Fuels:Coal, Geochemistry, Geology, Geophysics, Logs, Misc and Fuels, Rock-chip, Surface mapping	Arthur Lineament, Carbonate Hosted Mineralisation, Parmeener Supergroup(S)	Aeromagnetics; Geological Mapping; Rock Geochemistry; Drilling;	Investigation of magnesite-dolomite, coal and iron deposits. Keith iron formation consists of bedded pyrite in siltstone with minor magnetite bands and rare chalcopyrite.
72_0916	Lyons River Copper Occurrence, E.L. 43/70, Northwest Tasmania	EL43/1970	CRA Exploration Proprietary Limited, Mineral Holdings Australia Proprietary Limited, Tomic Exploration Proprietary Limited	Porter, T.M.	01/05/1972	1	3PP, 1 TABLE, 1 PLAN,	B A Creek, Lyons River	Meunna	Lyons R	Base Metals, Chalcopyrite, Copper, Dolomite, Magnesite, Pyrite	Geochemistry, Stream sediment	Arthur Lineament, Carbonate Hosted Mineralisation, Gossan	Stream Sediment Geochemistry;	Trace chalcopyrite occurs in a brecciated and silicified dolomitic slate on the Lyons River and is similar to the Keith River sulphide horizon.
78_1243	Progress Reports on Exploration on E.L. 43/70, Arthur River, Tasmania During 1974-1977 Part 1. April-Aug 1974	EL43/1970	Mineral Holdings Australia Proprietary Limited	Nye, P.B.	01/01/1977	1	7PP, 3 FIGS, 3 TABLES,	Arthur River, Lyons River, Savage River	Cleveland, Meunna	Cann Ck, Lyons R, Meunna Trig, Preolenna, Victory	Coal, Lignite, Magnesite, Silica	Analysis, Auger/Test pits, Bed-rock, Drilling, Fuels:Coal, Geochemistry, Geology, Indust. Minerals, Misc and Fuels, Non-metallics, Petrology, Surface mapping	Arthur Lineament, Parmeener Supergroup(S), Permian Coal Measures, Rocky Cape Region(S), Tertiary Basalt	Geological Mapping; Drilling;	Operations and investigations on several prospects are outlined. Sampling and assay results are not finalised but several companies are showing interest in the deposits.
80_1429	Tasmanian Oil-Shale Prospects, Quarterly Interim Report	EL17/1979, EL18/1979, EL19/1979, EL21/1979	Petro Quest Proprietary Limited	Anon	01/05/1980	1	11PP, 2 APPX, (APPX 2 = 6 FIG),	Beaconsfield, Bracknell, Golden Valley, Latrobe, O Connors Peak, Railton, Yolla	Arthur River, Forth, Hellyer, Meander, Mersey, South Esk, Tamar		Tasmanites	Fuels:Oil shale, Geochemistry, Misc and Fuels	Exploration Potential, Parmeener Supergroup(S)	Remote Sensing; Geological Mapping;	A summary of performed and planned operations. No results are presented in the report.
80_1477	Exploration Licence 43/70, Sisters Creek, Tasmania, Drilling Programme December, 1976	EL43/1970	Broken Hill Proprietary Company Limited, Mineral Holdings Australia Proprietary Limited	Anon	01/09/1977	1	4PP, 2 APPX, 1 PLAN,	Lapoinya, Milabena, Sisters Creek	Meunna, Yolla		Silica	Analysis, Drilling, Geology, Indust. Minerals, Logs, Misc and Fuels, Non-metallics, Percussion, Surface mapping	Rocky Cape Group(S)	Geological Mapping; Drilling;	Following favourable surface sampling, the Jacob Quartzite in the Sisters Creek area was tested by shallow reconnaissance percussion drilling to a maximum depth of 21 m. Weathering to chemically acceptable, but often soft, quartzite is extensive, extend
82_1816	Preliminary Report on An Airborne Geophysical Survey, Rapid River, E.L. 1/79, North-West Tasmania	EL1/1979	CRA Exploration Proprietary Limited	Flis, M.F.	01/08/1982	1	12PP, 1 APPX, 3 PLANS, 7 FIG,	Arthur River, Lyons River, Mt Bertha, Rapid River	Cleveland, Horton, Meunna, Trowutta	Savage R, Victory	Base Metals, Chalcopyrite, Copper, Gold, Hematite, Iron, Magnesite, Magnetite, Malachite, Pyrite, Silver	Air magnetic, Air radiometric, Geology, Geophysics, Surface mapping	Amphibolite, Arthur Lineament, Gossan, Rocky Cape Region(S)	Airborne Radiometrics; Aeromagnetics; Geological Mapping;	Airborne magnetic and radiometric survey data was used to create an interpreted geology map for the area. Magnetic anomalies were delineated for future follow-up work. Priority grading of anomalies by inversion modelling is recommended.
83_2030	First Progress Report on the Follow-up of Aeromagnetic Anomalies, Rapid River E.L. 1/79 North West Tasmania, August 1982 to August 1983.	EL1/1979	CRA Exploration Proprietary Limited	Clemenson, I.M., Flis, M.F.	01/08/1983	1	13PP, 2 APPX, 1 TABLE, 5 PLANS,	Clearwater Creek, Donaldson River, Little Donaldson River, Lyons River, Mt Bertha, Pinner Creek, Rapid River, Roy Creek	Cleveland, Meunna		Base Metals, Tin, Tungsten	Geochemistry, Geology, Geophysics, Gnd magnetic, Soil (A,B,C horiz), Stream sediment	Arthur Lineament, Dolerite, Photogeology	Ground Magnetics; Soil geochemistry; Stream Sediment Geochemistry;	Initial ground follow-up of nine aeromagnetic anomalies resulted in the dismissal of six as being of no further interest. The remaining three are recommended for gridding.

**ARTHUR RIVER PAST EXPLORATION
1966-1984**

Report no	Title	Tenements	Companies	Authors	Reportdate	NfVims	Structure	Ggrphc	Map_name	Deposits	Minerals	Types	Keywords	Xplrmthds	Annotation
83_2036	E.L. 43/70 Arthur River, Tasmania, Report on Exploration for the Year Ending 15 October, 1983.	EL43/1970	CRA Exploration Proprietary Limited, Mineral Holdings Australia Proprietary Limited	Williams, V.A.	01/08/1983	1	15PP, 9 APPX, 17 PLANS	Arthur River, B A Creek, Keith River, Lyons River, Pinner Creek	Meunna	Lyons R	Chlorite, Iron, Magnesite, Magnetite, Pyrite, Taic, Tourmaline	Analysis, Diamond, Drilling, Geology, Geophysics, Gnd magnetic, Logs, Metallic minerals, Mineral Process., Misc and Fuels, Petrology, Surface mapping	Arthur Lineament, Dolomite	Ground Magnetics; Geological Mapping; Drilling;	Two potentially large deposits of moderate to low grade magnesite have been identified by geological mapping and diamond drilling. One zone is 200 m to 400 m wide, over 1000 m long and at least 270 m deep. The other deposit occurs beneath Quaternary all
84_2103	Rapid River EL 1/79 North West Tasmania. Progress Report on Exploration August 1983 - February 1984.	EL1/1979	CRA Exploration Proprietary Limited	Clemenson, I.M.	01/03/1984	1	17PP, 3 APPX, 18 PLANS	Clearwater Creek, Donaldson River, Keith River, Little Donaldson River, Lyons River, Rapid River, Savage River	Cleveland, Meunna, Trowutta		Base Metals, Chlorite, Gold, Graphite, Iron, Magnesite, Magnetite, Pyrite, Sericite	Air electromag, Air magnetic, Air radiometric, Geochemistry, Geophysics, Misc and Fuels, Petrology, Rock chip, Soil (A,B,C horiz), Stream sediment	Arthur Lineament, Exploration Potential, INPUT-EM, Mafic Volcanics, Rocky Cape Region(S)	Airborne Radiometrics; Aeromagnetics; Airborne EM; Soil geochemistry; Stream Sediment Geochemistry; Rock Geochemistry;	Follow-up of aeromagnetic and INPUT-EM anomalies have produced inconclusive results. Further work is recommended. Further evaluation of a magnetite-rich horizon and an anomalous gold value from a creek in the south of the EL is recommended. The potenti
84_2214	E.L. 43/70 Arthur River Area. Report on Exploration for 12 Months to 15th October, 1984	EL43/1970	CRA Exploration Proprietary Limited, Mineral Holdings Australia Proprietary Limited	Mackenzie, P.C.J.	01/09/1984	2	29PP, 16 APPX, 31 PLANS	Arthur River, Cann Creek, Keith River, Lyons River	Meunna	Arthur R, Cann Ck, Keith R, Lyons R	Dolomite, Magnesite, Pyrite	Analysis, Biogeochemistry, Diamond, Drilling, Geochemistry, Geology, Geophysics, Gravity, Indust. Minerals, Logs, Misc and Fuels, Non-metallics, Surface mapping, Whole-rock:Major	Arthur Lineament	Geological Mapping; Drilling;	A major magnesite body has been outlined at the Lyons River deposit. The zone is over 2000 m long by up to 400 m wide and at least 270 m deep. It contains an estimated 30 Mt of plus 40% MgO with 1.10% Fe2O3, 2.55% CaO and 5.53% SiO2 down to the level of
84_2214	E.L. 43/70 Arthur River Area. Report on Exploration for 12 Months to 15th October, 1984	EL43/1970	CRA Exploration Proprietary Limited, Mineral Holdings Australia Proprietary Limited	Mackenzie, P.C.J.	01/09/1984	2	29PP, 16 APPX, 31 PLANS	Arthur River, Cann Creek, Keith River, Lyons River	Meunna	Arthur R, Cann Ck, Keith R, Lyons R	Dolomite, Magnesite, Pyrite	Analysis, Biogeochemistry, Diamond, Drilling, Geochemistry, Geology, Geophysics, Gravity, Indust. Minerals, Logs, Misc and Fuels, Non-metallics, Surface mapping, Whole-rock:Major	Arthur Lineament	Gravity;	A major magnesite body has been outlined at the Lyons River deposit. The zone is over 2000 m long by up to 400 m wide and at least 270 m deep. It contains an estimated 30 Mt of plus 40% MgO with 1.10% Fe2O3, 2.55% CaO and 5.53% SiO2 down to the level of
84_2214	E.L. 43/70 Arthur River Area. Report on Exploration for 12 Months to 15th October, 1984	EL43/1970	CRA Exploration Proprietary Limited, Mineral Holdings Australia Proprietary Limited	Mackenzie, P.C.J.	01/09/1984	2	29PP, 16 APPX, 31 PLANS	Arthur River, Cann Creek, Keith River, Lyons River	Meunna	Arthur R, Cann Ck, Keith R, Lyons R	Dolomite, Magnesite, Pyrite	Analysis, Biogeochemistry, Diamond, Drilling, Geochemistry, Geology, Geophysics, Gravity, Indust. Minerals, Logs, Misc and Fuels, Non-metallics, Surface mapping, Whole-rock:Major	Arthur Lineament	Geological Mapping; Rock Geochemistry; Drilling;	A major magnesite body has been outlined at the Lyons River deposit. The zone is over 2000 m long by up to 400 m wide and at least 270 m deep. It contains an estimated 30 Mt of plus 40% MgO with 1.10% Fe2O3, 2.55% CaO and 5.53% SiO2 down to the level of

**ARTHUR RIVER PAST EXPLORATION
1985-1999**

Report no	Title	Tenements	Companies	Authors	Reportdate	Nr/vms	Structure	Graphclic	Map name	Deposits	Minerals	Types	Keywords	Xprlmthds	Annotation
85_2340	Rapid River E.L. 1/79 Report on the Reduction of Licence Area.	EL1/1979	CRA Exploration Proprietary Limited	Clementson, I.M.	01/02/1985	1	24PP, 3 APPX, 1 TABLE, 18 PLANS	Clearwater Creek, Donaldson River, Keith River, Mt Bertha, Rapid River, Savage River	Cleveland, Meunna		Base Metals	Air electromag, Air magnetic, Air radiometric, Geochemistry, Geology, Geophysics, Gnd magnetic, Misc and Fuels, Petrology, Remote sensing, Rock-chip, Soil (A,B,C horiz), Stream sediment, Surface mapping	Arthur Lineament, Burnie Formation(S), INPUT-EM, Magnetic Modelling, Photogeology, Rocky Cape Group(S), Shale Hosted Mineralisation, Tertiary Basalt	Airborne Radiometrics; Remote Sensing; Aeromagnetics; Ground Magnetics; Airborne EM; Soil geochemistry; Geological Mapping; Stream Sediment Geochemistry; Rock Geochemistry;	Ground follow-up of aeromagnetic and INPUT-EM anomalies failed to locate any evidence of mineralisation over large portions of the EL.
85_2341	Rapid River E.L. 1/79, North West Tasmania. Progress Report on Exploration February 1984 - February 1985	EL1/1979	CRA Exploration Proprietary Limited	Clementson, I.M.	01/02/1985	1	18PP, 3 APPX, 25 PLANS	Arthur River, Cann Creek, Folly Hill, Lyons River, Rapid River	Cleveland, Meunna	Arthur R, Cann Ck, Folly Hill, Lyons R	Gold, Iron, Magnesite, Magnetite, Pyrite	Air magnetic, Geochemistry, Geology, Geophysics, Gnd electromag, Gnd magnetic, Gnd radiometric, Indust. Minerals, Misc and Fuels, Petrology, Rock-chip, Soil (A,B,C	Arthur Lineament, Burnie Formation(S), Duricrust, Ferricrete, INPUT-EM, Oonah Formation(S), Rocky Cape Group(S)	Ground Radiometrics; Aeromagnetics; Ground Magnetics; Soil geochemistry; Geological Mapping; Stream Sediment Geochemistry; Rock Geochemistry;	Follow-up of aeromagnetic and INPUT-EM anomalies has failed to delineate mineralisation. The majority of anomalies are caused by Tertiary basalts and Precambrian black shales with no economic potential. No further work is recommended for these areas. On
86_2533	Rapid River E.L. 1/79, North West Tasmania. Progress Report on Exploration February 1985 - February 1986	EL1/1979	CRA Exploration Proprietary Limited	Clementson, I.M.	01/02/1986	2	18PP, 3 APPX, 25 PLANS	Arthur River, Cann Creek, Folly Hill, Lyons River, Rapid River	Cleveland, Meunna	Arthur R, Cann Ck, Folly Hill, Lyons R	Gold, Iron, Magnesite, Magnetite, Pyrite				No significant work, Jackro auger failed to reach through alluvium
85_2498	E.L. 43/70 Arthur River Area, Tasmania. Report on Exploration for 12 Months to 15th October, 1985	EL43/1970	CRA Exploration Proprietary Limited, Mineral Holdings Australia Proprietary Limited	Dickson, T.W.	01/10/1985	1	5PP, 3 APPX, 2 FIG, 1 PLAN	Arthur River, Cann Creek, Lyons River	Meunna	Cann Ck	Magnesite	Analysis, Diamond, Drilling, Geology, Indust. Minerals, Logs, Mineral Process., Misc and Fuels, Surface	Arthur Lineament	Geological Mapping; Drilling;	Diamond drilling below a series of small magnesite outcrops on Cann Ck only intersected two small sections of magnesite (4.4 m and 6.5 m thick). No further work is recommended due to the restricted tonnage potential of the deposit. Metallurgical testing
87_2716	Ei 43/70 Arthur River Area. Report on Exploration for 12 Months to 15 October 1987	EL43/1970	CRA Exploration Proprietary Limited, Mineral Holdings NL	Funnell, F.R.	01/09/1987	1	6PP, 4 APPX, 3 PLANS,	Arthur River, B A Creek, Lyons River	Cleveland, Meunna	Arthur R, Cann Ck, Lyons R	Dolomite, Magnesite	Bed-rock, Geochemistry, Geology, Indust. Minerals, Mineral Process., Mineral/Gossan, Misc and Fuels, Surface mapping	Arthur Lineament	Rock Geochemistry;	Bulk sampling of magnesite prospects for metallurgical and marketing studies. Large reserves of magnesite have been identified. Maximum reserves at Cann Creek are estimated at 200,000 t.
87_2716	Ei 43/70 Arthur River Area. Report on Exploration for 12 Months to 15 October 1987	EL43/1970	CRA Exploration Proprietary Limited, Mineral Holdings NL	Funnell, F.R.	01/09/1987	1	6PP, 4 APPX, 3 PLANS,	Arthur River, B A Creek, Lyons River	Cleveland, Meunna	Arthur R, Cann Ck, Lyons R	Dolomite, Magnesite	Bed-rock, Geochemistry, Geology, Indust. Minerals, Mineral Process., Mineral/Gossan, Misc and Fuels, Surface mapping	Arthur Lineament	Geological Mapping;	Bulk sampling of magnesite prospects for metallurgical and marketing studies. Large reserves of magnesite have been identified. Maximum reserves at Cann Creek are estimated at 200,000 t.
87_2716	Ei 43/70 Arthur River Area. Report on Exploration for 12 Months to 15 October 1987	EL43/1970	CRA Exploration Proprietary Limited, Mineral Holdings NL	Funnell, F.R.	01/09/1987	1	6PP, 4 APPX, 3 PLANS,	Arthur River, B A Creek, Lyons River	Cleveland, Meunna	Arthur R, Cann Ck, Lyons R	Dolomite, Magnesite	Bed-rock, Geochemistry, Geology, Indust. Minerals, Mineral Process., Mineral/Gossan, Misc and Fuels, Surface	Arthur Lineament	Geological Mapping;Rock Geochemistry;	Bulk sampling of magnesite prospects for metallurgical and marketing studies. Large reserves of magnesite have been identified. Maximum reserves at Cann Creek are estimated at 200,000 t.
88_2857	Exploration Licence 15/85 - Meunna, Final Report	EL15/1985	Amatek Limited, Monier Limited, Wolston Developments Proprietary Limited	Harrison, B.R.	01/09/1988	1	4PP, 1 APPX, 1 FIG,	Dip Range, Lapoinya, Maynes Creek, Meunna, Meunna Hills, Sisters Hills	Meunna, Wynyard, Yolla	Lapoinya	Gold, Gravel, Sand, Silica	Analysis, Auger/Test pits, Construction materials, Drilling, Geochemistry, Geology, Indust. Minerals, Logs, Misc and Fuels, Non-metallics, Percussion, Stream sediment	Rocky Cape Group(S)	Stream Sediment Geochemistry;	Exploration for economic silica sand deposits and gold mineralisation was unsuccessful in the relinquished area.
88_2862	Percussion Drilling and Geological Results, Arthur River E.L. 43/70, Cann Creek Magnesite and Foya Talc	EL43/1970	Australian Mineral Development Laboratory, CRA Exploration Proprietary Limited, Hillmac Proprietary Limited, Mineral Holdings Australia Proprietary Limited	Mackenzie, P.C.J.	01/05/1988	1	17PP, 6 APPX, 2 PLANS,	Arthur River, Cann Creek, Keith River	Meunna	Cann Ck, Foya	Dolomite, Magnesite, Talc	Analysis, Drilling, Geology, Indust. Minerals, Logs, Mine/Deposit, Misc and Fuels, Non-metallics, Percussion	Arthur Lineament	Drilling;	Percussion drilling delineated high grade magnesite (greater than 41% MgO) within 10% of an interbedded talc carbonate sequence. A complicated structure exhibits dislocated magnesite outcrops and subcrops. Further drilling is recommended. Prospective ta
88_2865	Exploration Licence 23/87 - Wynsmith Hills, Annual Report : Year 1 (November 1987 - November 1988)	EL23/1987	Betoota Proprietary Limited, Echelon Proprietary Limited, Pasadena Projects Proprietary Limited, Petrecon Australia Proprietary Limited	Cromer, W.C.	01/10/1988	1	12PP, 1 FIG, 2 PLANS,	Arthur River, Little Rapid River, Neasey Creek, Wynsmith Hills	Meunna, Stanley		Base Metals, Gold	Air magnetic, Geology, Geophysics, Remote sensing, Surface mapping	Arthur Lineament, Parmeener Supergroup(S), Rocky Cape Group(S)	Geological Mapping; Aeromagnetics, remote sensing	A summary of previous mining and exploration including an interpretative geological compilation showing aero magnetic anomalies.

**ARTHUR RIVER PAST EXPLORATION
1985-1999**

Report no	Title	Tenements	Companies	Authors	Reportdate	Nr/vms	Structure	Grp/ple	Map name	Deposits	Minerals	Types	Keywords	Xplr/mthds	Annotation
90_3146	Relinquishment Report for 12 Months to June 1990. EL 18/89, Frog Hill, Tasmania.	EL18/1989	Placer Exploration Limited	Ellis, P.D.	01/05/1990	1	14PP, 3 APPX, 2 FIG, 6 PLANS,	Blue Peak, Folly Hill, Frog Hill	Meunna	Folly Hill	Gold	Geochemistry, Geology, Rock-chip, Soil (A,B,C horiz), Stream sediment, Surface mapping	Arthur Metamorphic Complex(S), Neasy Formation(S), Rocky Cape Group(S)	Geological Mapping;	Results from bulk cyanide leach and conventional stream sediment sampling together with limited rock chip sampling and deep auger soil sampling (at Folly Hill) did not encourage further work.
91_3219	EL 40/89 Keith River Report on Exploration Activity January 1990 to November 1990.	EL40/1989	Geopeko Limited, Peko Exploration Limited	Mathison, I.J., Virgoe, K.J.	01/12/1990	1	6PP, 5 FIG, 2 TABLES, 3 APPX.	Baretop Ridge, Keith River	Cleveland, Meunna, Waratah, Yolla	Arthur R, Keith R, Lyons R	Base Metals	Air magnetic, Geophysics, Gravity	Arthur Metamorphic Complex(S), Oonah Formation(S)	Aeromagnetics; gravity	The report provides a review of previous exploration and a geophysical review of regional gravity and magnetic data.
91_3220	EL 44/89 Wedge Plains Report on Exploration Activity January 1990 to November 1990	EL44/1989	Geopeko Limited, Peko Exploration Limited	Mathison, I.J., Virgoe, K.J.	01/12/1990	2	8PP, 5 FIG, 2 TABLES, 4 APPX, 6 PLATES,	Arthur River, Wedge Plains	Meunna, Smithton, Stanley, Trowutta		Base Metals, Gold	Air magnetic, Geochemistry, Geology, Geophysics, Gravity, Surface mapping, Water	Rocky Cape Group(S)	Aeromagnetics; gravity	Report provides regional reviews of geology, mineralisation, geophysics (aeromagnetic/gravity interpretation), previous exploration including stream sediment sampling. 109 water samples, three Au anomalous areas but analytical problems to be resolved. A
91_3247	EL 1/90 Meunna Report on Exploration Activity March 1190 to February 1991	EL1/1990	Geopeko Limited, Peko Exploration Limited	Mathison, I.J., Virgoe, K.J.	01/02/1991	1	7 PP, 4 APPX, 5 FIG, 2 TABLES, 5 PLATES,	Cann Creek, Meunna	Meunna	Keith R	Base Metals, Gold	Air magnetic, Geochemistry, Geology, Geophysics, Gravity, Rock-chip, Surface mapping, Water	Arthur Lineament	Geological Mapping; Aeromagnetics; gravity; rock geochemistry	The exploration target is stratiform Cu-Zn-Ag (Mt Isa - McArthur River type) and stratiform Cu-Zn-Au (Besshi type). Collected 9 water samples and 30 rock chip samples (from Cann Ck). Three rock chip samples had anomalous Au (up to 5.83 g/t). Give a revi
92_3328	EL 40/89 Keith River Report on Exploration Activity December 1990 to November 1991	EL40/1989	Geopeko Limited, Peko Exploration Limited	Mathison, I.J.	01/12/1991	1	6PP, 1 APPX, 1 FIG, 2 PLATES,	Keith River	Cleveland, Meunna	Atlas		Geochemistry, Rock-chip, Stream sediment	Huminex	Stream Sediment Geochemistry;	No anomalies in the 19 stream sediments taken. Anomalous Pb and Zn values were obtained in the Atlas area (Pb-46ppm, Zn-1800 ppm).
92_3331	EL 43/89 Holder Rivulet Report on Exploration Activity December 1990 to November 1991.	EL43/1989	Geopeko Limited, Peko Exploration Limited	Mathison, I.J.	01/12/1991	1	6 PP, 1 APPX, 1 FIG, 1 PLATE	Cann Creek, Holder Rivulet, Neasey Creek	Meunna			Geochemistry, Geology, Rock-chip, Surface mapping	Arthur Lineament	Rock Geochemistry;Geological Mapping	Anomalous gold results from water sampling was followed up in Neasey Creek. Detailed rock-chip sampling failed to find the source of the anomalous gold. It was surmised that problems with analytical techniques led to spurious results. Anomalous lead res
92_3370	Relinquishment Report Including Report on Exploration Activity April 1991 to April 1992	EL30/1990	Geopeko Limited	Mathison, I.J.	01/07/1992	1	7 PP, 2 FIG, 2 TABLES, 4 APPX	Arthur River	Meunna	Folly Hill	Gold	Geochemistry, Geology, Rock-chip, Surface mapping, Water	Huminex	Geological Mapping;Rock Geochemistry	Anomalous gold by the Huminex method was not repeated and is regarded as spurious. Rock chip samples from the Folly Hill workings, Wynsmith Hills and along Cann Ck revealed no significant mineralization. It was recommended that the area be dropped
93_3529	EL 40/89 Keith River Relinquishment Report and Annual Report - December 1992 to December 1993	EL40/1989	Peko Exploration Limited	Gardner, D.	01/12/1993	1	9 PP, 3 FIGS, 4 PLATES, 3 APPX,	Arthur River, Keith River, Lyons River	Cleveland	Atlas, Keith R, Victory	Copper, Gold, Lead, Zinc	Geochemistry, Geology, Misc and Fuels, Petrology, Rock-chip, Surface mapping, Water	Arthur Lineament	Geological Mapping;Rock Geochemistry	Water sampling and reconnaissance mapping highlighted a gold anomalous area with adjacent highly altered rocks in the Rohan1 Creek area
95_3711	Assorted Stream Sediment Geochemistry Tasmania Wide		CSR Limited	Ellis, P.D.	01/04/1995	2	300PP					Geochemistry, Geology, Stream sediment, Surface mapping		Stream Sediment Geochemistry;	Tasmania-wide stream sediment survey, no report, analysis only
95_3756	Data to Accompany Application for Retention Licences Arthur River Area for EL 43/70, RL8717, RL8718	EL43/1970, RL17/1987, RL18/1987	CRA Exploration Proprietary Limited	Anon	01/01/1987	1	110PP	Arthur River, Cann Creek, Keith River, Lyons River	Meunna	Arthur R, Cann Ck, Keith R, Lyons R, Pinner	Dolomite, Magnesite	Analysis, Diamond, Drilling, Environment, Feasibility Study, Geochemistry, Geology, Logs, Mineral Process., Mineral analysis, Misc and Fuels, Non-metallics, Ore Reserves, Rock-chip, Surface mapping	Arthur Lineament, Arthur Metamorphic Complex(S), Oonah Formation(S), Parmeener Supergroup(S), Precambrian Sediments, Rocky Cape Group(S), Sediment Hosted Mineralisation, Tertiary Basalt, Vein Mineralisation	Drilling;	Report to justify an application for a retention licence. Summarises results from 19 drill holes. The Keith R-Arthur R deposit(3500m by 150m-400m by 300m deep) has approximately 3 million tonnes/vertical metre of magnesite with high grade zones of +40%
98_4218	Combined Annual Report - EL's 37/96 Rapid River, 38/96 Savage River, (to 29/10/98) and EL 46/96-Flowerdale River(to 17/12/98),West Tasmania	EL37/1996, EL38/1996, EL46/1996	Goldstream Mining NL, Titan Resources NL, Turner Geological Services	Turner, N.J.	01/07/1998	1	5PP, 3FIG, 2APPX	Arthur River, Campbell Range, Cann Creek, Donaldson River, Flowerdale River, Inglis River, Keith River, Lapoinya, Lyons River, Meunna, Mt Bertha, Preolenna, Rapid River, Savage River	Corinna, Meunna	Blue Peak, Brookside, Folly Hill, Lucy Spur, Specimen Ck, Specimen Reef	Antimony, Arsenic, Bismuth, Copper, Gold, Lead, Magnesite, Silver, Zinc	Geochemistry, Stream sediment	Arthur Lineament, Arthur Metamorphic Complex(S), Oonah Formation(S), Parmeener Supergroup(S), Precambrian Sediments, Rocky Cape Group(S), Sediment Hosted Mineralisation, Tertiary Basalt, Vein Mineralisation	Stream Sediment Geochemistry;	Two broad structural classes of gold mineralisation have been identified in the Arthur Metamorphic Complex and adjacent rocks. One class is widespread anomalous gold which is either pre-tectonic(?primary) or syn-tectonic, the other class is post-tectonic
98_4242	Annual Report - EL 26/97, Neasey Creek, N.W. Tasmania	EL26/1997	Pacific-Nevada Mining Proprietary Limited, Turner Geological Services	Westbrook, S.	01/11/1998	1	8pp, 3 fig, 2 appx, 4 plans	Arthur River, Neasey Creek	Yolla		Gold	Geochemistry, Geology, Rock-chip, Stream sediment, Surface mapping	Cowie Siltstone(S), Detention Sub-Group(S), Irby Siltstone(S), Jacob Quartzite(S), Rocky Cape Group(S)	Stream Sediment Geochemistry; Rock Geochemistry;	Work done included stream sediment sampling and some rock chip sampling and geological mapping. One gold anomaly was recorded.

APPENDIX II

DIGITAL DATA