

SAMMY PROJECT

GROUP TECHNICAL REPORTING STATUS EL25643 AND EL25653 ANNUAL TECHNICAL REPORT FOR PERIOD 20th August 2009 to 19th August 2010

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MAP REFERENCE: Illogwa Creek 250K Sheet SG53/15 Hale River 250K Sheet SG53/03

SUMMARY

This report summarises work completed on Mithril Resources Sammy Project Exploration Licences (EL25643 and 25653) for the year ending the 19th August 2010.

The project area is located approximately 160km east of Alice Springs, south of the Plenty Highway and straddles the Hale River and Illogwa Creek 250,000-scale map sheets.

Work completed over the tenement area during the reporting period included the following:

- Airborne Geophysical surveying (VTEM covering 24 sqkm at 200m line spacing)
- Ground EM (4 lines for 5 km)
- Geological mapping
- Rock chip Sampling (7 samples)
- Heritage surveys
- RC Percussion Drilling (5 holes for 536m)

The VTEM survey identified a number of high priority anomalies for ground follow-up. Ground EM was conducted over a number of these anomalies followed by drill testing of three conductors. One conductor is interpreted to be sourced buy significant graphite identified in the drillhole, with no obvious source to the conductors in the other two holes. Two drillholes were also drilled under mineralisation at Edmund and Kevin Darling Prospects. Low level Ni/Cu anomalism was intersected in weakly mineralised gabbroic rocks.

Further work in the next reporting year will concentrate on determining the source of the conductors in two of the drillholes and assessing the extent of gabbroic rocktypes +-mineralisation at the Percy Ni/Cu Prospect.

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Table 1: Tenement Status

1.0 Introduction

This report summarises work completed on Mithril Resources Sammy Project Exploration Licences (EL25643 and 25653) for the year ending 19th August 2010. These two tenements comprise the Sammy Joint Venture.

The Sammy Project is located approximately 160km east of Alice Springs. Access to the area is via the Plenty Highway, which passes east-west north of the project area (Figure 1). The tenement is contiguous with Mithril's Huckitta Project.

Mithril entered into a Joint Venture with Cazaly Resources as they interpreted that mafic and ultramafic rocks may extended onto the Sammy Project and that these rocks were prospective for magmatic Ni/Cu/PGE sulphides. This interpretation was proven correct during the last two years of exploration.



Figure 1.1 Location of Sammy Project EL25643 and 25653

2.0 Tenure

Leasing details for the project are detailed in Table 1 below. Mithril Resources entered a Heads-of-Agreement with Sammy Resources to farm-in to EL 25643 and 25653. The agreement covers all minerals and Mithril may earn an 80% interest in the tenements by completing expenditure of AUD\$2M within 5 years of the commencement date. Prior to reaching this agreement Sammy Resources have held the tenement in their own right.

Tenement	Grant date	Current size (blocks)
EL25653	19/08/2007	225
EL25643	25/07/2007	218

Table 1:Tenement Status

EL25643 was reduced by the required 50% at the end of Year 2 to 218 sub blocks.

3.0 Geology

3.1 Regional Geology

The Project lies within Illogwa Creek 250k Sheet. The Project area is located along the north-eastern margin of the Amadeus Basin in a zone of complex deformation and interaction between basement structures and the sedimentary sequence.

The Amadeus Basin sediments overlie the metamorphic rocks of the Arunta Block and postdate the intrusion of the Harts Range pegmatites and dolerites inferred to be part of the Stewart Dyke Swarm. The stratigraphy and geological evolution of the basin is well document in Korsch and Kennard (1991).

The Amadeus Basin in the Illogwa Creek area has a number of important geological differences to the northern margin of the Amadeus Basin south and west of Alice Springs:

- It is characterized by a thin-skinned tectonic style (thrusts and nappes) with intense folding and thrusting that contrasts with a thick-skinned tectonic style further to the west.

- Only the lower stratigraphic section is preserved (up to the Arumbera Sandstone) and lithological facies are markedly different to those further east.

- There is a wide zone of interaction between the sedimentary sequence and basement structures that verge to the south and southwest.

- Alice Springs age shear zones deforming the basin sequence are associated with widespread greenschist facies retrogression or alteration and these zones are similar to those associated with gold mineralisation at Winnecke and Arltunga (Mackie, 1986; Dirks and Wilson, 1991).

The margin of the basin is structurally complex. In the Oolera Fault Zone, the Heavitree Quartzite, Gillen Member of the Bitter Springs Formation and rocks of the underlying Arunta block are inter-sliced in numerous thrust blocks. Basement cored folds may represent the cores of thrust nappes. A second major zone of overthrusting coincides with the Illogwa Schist Zone and is inferred to represent the lowest thrust-nappe of the Arltunga Nappe Complex (Shaw and Freeman, 1985; Mackie, 1986). Slivers of Heavitree Quartzite have been overridden by retrogressed schists in this zone and the alteration (retrogression) and deformation is similar to that spatially associated with

mineralisation at Arltunga (Mackie, 1986; Dirks and Wilson, 1991) and is coeval with that at the base of the White Range Nappe on the Alice Springs 1:250K sheet. Quartz veins with associated sulphides are common in these zones and a single gold bearing copper occurrence in quartz veins in the basement is reported in the vicinity of the Hale River (Shaw and Freeman, 1985). Associated deformation in the cover sequence is complex and appears to be thin skinned in character.

The Arunta Province has been subjected to several regional orogenic events. Significant gold mineralization occurs in extensively deformed zones of faulting, shearing and greenshist metamorphism marking the boundary between the Arunta Province and Amadeus Basin.

3.2 Project Geology

The Sammy Project area is predominantly covered by a veneer of aeolian and colluvial sand and gravel. Strongly weathered biotite, garnet-biotite and quartzofeldspathic gneiss, calcsilicate rocks and amphibolite are sporadically exposed, particularly in the northern portions of the project area. In addition Mithril has located a number of Ni-Cu-PGE rich mafic intrusions in this northern area which have been the focus of exploration to date. There are numerous ferricrete, calcrete and silcrete rises, some of which may be indicative of the targeted mafic and ultramafic rocks. No detailed mapping has been undertaken in the area with the best regional maps compiled prior to detailed aeromagnetics and the current understanding of the geological history.

The area is considered prospective for Ni-Cu-PGE mineralisation associated with mafic and ultramafic intrusions.

4.0 Exploration Work Completed

4.1 Historical Exploration

There have been several explorers in the region previously, exploring a range of commodities including gold, uranium, base metals and diamonds. Some of the more significant exploration efforts are summarised below. Gutnick Resources took a total of 27 stream sediment samples in the main regional program covering EL10269 which partially overlaps EL 25653. Only the top 5cm of sand from across the active stream channel was sampled. A sample density of 1 sample per 5 sq km was used. The best result was 0.25ppb Au. Rio Tinto explored the Casey Bore area in 1998 covering the eastern Amadeus Basin, an intracratonic basin which began to form about 900Ma, and the Palaeoproterozoic Arunta Block. The contact between the Arunta Block and the Amadeus Basin in the north of the tenement area is marked by a series of E -W trending thrust zones. The southern end of the Woolangi Lineament, a NW -SE trending structural zone, marked in the area by a basement high, the Casey Inlier, also occurs within the tenement area. Rio conducted detailed geophysical surveys, stream sediment sampling, RAB and RC drilling. Anomalous Cu, Pb, Zn was returned from several phases of drilling.

4.2 Mithril Resources Work Completed 2009

During the 2008-9 reporting period Mithril undertook field work which included reconnaissance geological mapping, rock chip sampling, minor soil and stream sediment sampling. In Addition a VTEM survey covering ~128 sqkm at 200m line spacing was completed. The data from this survey was not available at the time of reporting last year and is now contained in Appendix 1. These programs identified multiple gabbroic intrusions containing magmatic Ni/Cu sulphides. The VTEM survey identified a number of targets that were followed up in the 2009-10 reporting year – see below.

4.3 Mithril Resources Work Completed 2010

Field work completed during the reporting period consisted of;

- Ground EM (5 line km)
- Heritage surveys
- RC Percussion drilling (5 holes for 536m)
- Rockchip sampling / geological mapping (7 samples)
- VTEM surveying 24 sqkm and interpretation of results

In addition to the above the VTEM results from the previous year were interpreted and a number of conductors were identified. A summary of all work completed is shown in Figure 2. This ground work was entirely within the northern portion of EL 25653.

Five lines of Ground EM were completed over VTEM targets BA124, BA125, BA126, BA146 and BA152 for a total of 5 line km (Figure 2). The data is contained in Appendix 2a and a summary with profiles of each line in Appendix 2b. Three of these targets showed up as significant basement conductors in the Ground EM data and were drill tested. Only one of the targets was resolved with the conductor identified as being graphitic gneiss in drillhole SARC-001. The two other drillholes (SARC-003 and SARC-004) were cased with 50mm PVC for downhole EM surveying.

In addition to the drilling over the conductors two RC drillholes were completed beneath the outcropping mineralisation at Edmund (SARC-005) and Kevin Darling (SARC-002). Weakly Ni/Cu/PGE mineralised gabbroic rocktypes were intersected in these two drillholes.

All drillhole data can be found in Appendix 3.

During the course of field verification 7 rockchip samples were taken for analysis. These samples were sent to ALS in Alice Springs for preparation and then pulps were sent to Perth for analysis using ME-ICP61 for 33 elements and PGM-ICP23 for Pt+Pd+Au for assay. Rockchip assay results can be found in Appendix 4.

As part of a larger VTEM survey ~23 sqkm of VTEM was flown in the northern portion of EL25653 during the reporting period at a 200m spacing. A moderate conductor was identified from this survey (2010VTEM_111) but has not been followed up on the ground as yet. All data from this 2010 VTEM survey can be found in Appendix 5.

Sammy Project (EL25653 and 25643) Annual Technical Report, Period Ending 19th August, 2010





5.0 Planned Work 2010-11

Mithril's field work including geological mapping and rock chip sampling garnered considerable success in 2009 and 2010 and the company plans to continue this work into 2011. Additionally a downhole EM survey program is planned on the two drillholes where no obvious conductor was identified. Shallow (auger?) drilling is also planned in the vicinity of the Percy Prospect.

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6.0 Appendix

Appendix 1:	VTEM Results and Report 2009
Appendix 2a:	Ground EM Data
Appendix 2b:	Ground EM Profiles and Models
Appendix 3:	Drillhole Data
Appendix 4:	Rockchip Assay Data
Appendix 5:	VTEM Results and Report 2010

7.0 References

Dirks, P.H., Wilson, C.J., 1991. Structural controls on the distribution of goldbearing quartz veins in the Arltunga gold field, Northern Territory, Australia. *Economic Geology, 86; 2; p 249-260.*

Korsch, R.J. & Kennard, J.M. (editors), 1991. Geological & geophysical studies in the Amadeus Basin central Australia. Bureau of Mineral Resources, Australia, Bulletin, 236, 5948.

Mackie, A.W., 1986. Geology and Mining History of the Arltunga Goldfield. *Northern Territory Geological Survey, Report 1986/2.*

Shaw, R.D., Freeman, M.J., Offe, L.A., and Senior, B.R., 1982. Geology of the Illogwa Creek 1:250,000 sheet area, Central Australia – Preliminary data, 1979-80 surveys. *Bureau of Mineral Resources, Record 1982/23* (unpublished).