

TREASURE PROJECT

EL25346. ANNUAL TECHNICAL REPORT. 5th February 2014 to 4th February 2015.

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March 2015.

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Electronic Version:EL25346_2015_A_01.pdf

MAP REFERENCE: Illogwa Creek 250K Sheet SG53/15. Quartz 100K Sheet SF59/51. GDA94A Zone 53.

SUMMARY

This report summarises work completed on the Treasure Project Exploration Licence (EL25346) for the annual reporting year ending the 4th February 2015.

The project area is located approximately 165 km northeast of Alice Springs, south of the Plenty Highway.

From 10th September 2013 MMG Exploration Pty Ltd was appointed JV Partner with an option agreement and acted as manager for the tenement.MMG ceased to be a JV partner on 26th October 2014.

This report will provide details on MMG exploration activities and IRM Ltd's exploration activities subsequent to resuming management of the tenement on 27th October 2014 to the end of the Annual Reporting Period.

CONTENTS

Introduction	4
Tenure	4
Geology	5
Regional Geology	
Project Geology	5
Exploration Work Completed	5
Historical Exploration	5
Uranium Oil & Gas Work Completed 2007/08	6
Mithril Resources Work Completed 2008	6
Mithril Resources Work Completed 2009	7
Mithril Resources Work Completed 2010	7
Mithril Resources Work Completed 2011-2012	8
Mithril Resources Work Completed 2012-2013	10.
MMG Exploration Ltd Work Completed 2013-2014	10
Expenditure	.12
Planned Work 2015	10
References	12
	Geology Regional Geology Project Geology Exploration Work Completed Historical Exploration Uranium Oil & Gas Work Completed 2007/08 Mithril Resources Work Completed 2008 Mithril Resources Work Completed 2009. Mithril Resources Work Completed 2010 Mithril Resources Work Completed 2011-2012 Mithril Resources Work Completed 2012-2013. MMG Exploration Ltd Work Completed 2013-2014 Expenditure Planned Work 2015.

FIGURES.

	Project Location Plan Gravity anomaly ~400m NW of Baldrick intrusion	
Figure 3:	Location of work completed on EL25346	. 9
Figure 4:	MMG Exploration Ltd Aeromagnetic Survey	10
Figure 5:	MMG Exploration Ltd Aeromagnetic Survey, TMI Image	.10

LIST OF TABLES

LIST OF APPENDICIES.

Appendix 1: MMG Exploration Ltd: Remnant Magnetism Study.

Appendix 2: IRM Ltd Surface Geochemistry: Grab Sampling.

1.0 Introduction

This report summarises work completed on the Treasure Exploration Licence (EL25346) for the year ending 4th February 2015. Mithril Resources held the tenement from 2008 to 2012.MMG Exploration Ltd was a Joint Venture partner from September 2013 to October 2014.

The Treasure Project is located approximately 165 km northeast 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 has identified a Ni-Cu-PGE mineralised mafic intrusion on the tenement and this style of mineralisation is the primary target type.



2.0 Tenure.

Leasing details for the project are detailed in Table 1 below. On the 4th of September 2008, Mithril Resources entered a Heads of Agreement with Bralich Holdings Limited, Aluminex Resources Limited and Uranium Oil & Gas Limited to earn-in to this tenement. Mithril was the tenement operator from September 2008 to September 2012. Mithril Resources Ltd pulled out from the Joint Venture in September 2012. Iron Mountain Mining Ltd applied for renewal of the tenement in January 2013.

MMG Exploration reached an agreement with Iron Mountain Mining Ltd on 10th September 2013 for a joint venture and option for the tenement and to act as manager.

Tenement	Owner	Date Granted	Tenure Expiry.	Size
EL 25346	Iron Mountain Mining Ltd.	5/2/2007.	04/02/2015.	32 sub blocks. 101km².

 Table 1: Tenement Status.

3.0 Geology.

3.1 <u>Regional Geology.</u>

The Arunta Block has been divided into 3 tectonic areas: - Central, Southern and Northern (Shaw et al, 1982). The Central Tectonic Zone consists of an accumulation of sedimentary and volcanogenic rocks deposited in an east – west trough. With time the trough broadened to include the Northern and Southern Tectonic Zones and the composition of the sediments being supplied to the basin matured.

An early tectonic event during the mid-Proterozoic metamorphosed and dislocated the rocks into numerous fault-bounded blocks. A later orogenic event, the Carboniferous Alice Springs Orogeny, reactivated many of these faults.

Sedimentation in the Georgina Basin began during the Neoproterozoic (i.e. Adelaidean equivalent) with deposition of argillites, arenites glacigene sediments and carbonates along the southern margin of the basin. Sediments deposited after the Neoproterozoic sequence consist primarily of carbonates and arenites (Shaw et al, 1982).

3.2 Project Geology.

The Arunta Region within the project consists of biotite gneiss, garnet-biotite gneiss, calcareous rocks, and amphibolite and quartzofeldspathic gneiss. The tenement falls within a poorly understood region of the Arunta known as the Irindina Province consisting of highly metamorphosed Cambrian aged rocks. Much of the tenement is under a thin veneer of Quaternary alluvial and aeolian sands and gravels.

4.0 Exploration Work Completed.

4.1 <u>Historical Exploration.</u>

In the mid-1950s, BMR geologists reported on pegmatite-hosted mica mining in the Harts Range Mica Field in an area both within and around EL 25346 tenement. It was noted that in addition to mica, beryl, uranium and niobium mineralisation were associated with the mica.

In 1982, CRA conducted exploration across tenements which encompass the current tenement area. They conducted a geochemical based program which involved extensive stream sediment and rock chip sampling. They subsequently dropped the ground but their results are in the NTGS database.

In 1983, Union Oil Development Corporation (Union) carried out exploration on EL 3466 that encompass the tenement area. Union's programme of exploration comprised geological reconnaissance mapping on 1:25,000 scale aerial photographs, stream sediment sampling and detailed mapping and evaluation of an area west of Brumby Bore. Here widespread scheelite mineralisation was identified. Mineralisation mostly occurs within calcsilicate bearing quartzites. Tungsten values range from 40 ppm to 800 ppm W.

4.2 Uranium Oil & Gas, Work Completed 2007/08.

During the 2007/08 reporting period MinMap, Alice Springs, was contracted by Uranium Oil & Gas (UOG) to complete a soil sample program over the W anomalous area. A total of 194 assays were taken and assayed by ALS in Malaga WA. The assay method was ME-ICP41 and was screened at -35 mesh (500 micron).

Results were disappointing, all assays being <10 ppm for tungsten and uranium. This was later confirmed by a helicopter reconnaissance. Although the soil samples covered the area where the high grade rock chips were taken and the creeks indicated the area was anomalous, there was no soil anomaly delineated.

4.3 Mithril Resources, Work Completed 2008.

During the 2008 reporting period Mithril undertook field work which included reconnaissance geological mapping, rock chip sampling and minor stream sediment sampling. Geological mapping was undertaken to field check mafic units previously identified by the NTGS and the surrounding areas were explored to potentially identify unrecorded mafic rock outcropping localities. Twenty rock chip samples were collected and sent to the lab for assay. One rock chip sample was sent for petrological analysis and three stream sediment samples were collected and sent to the lab for assay.

Geological mapping was focussed around two localities in the south of the tenement where mafic rocks had been previously identified by the NTGS.

Field checking in the southwest of the tenement confirmed small pods of mafic rock outcropping in a rugged valley which are coincident with two anomalous Cu historic stream sediment samples. The pods of amphibolite and gabbro outcrop along a linear trend and were deformed and metamorphosed to variable extents possibly suggesting two or more intrusive events are present. No visible sulphides were noted in rock chips. Field checking showed the outcropping of mafic rocks to be more extensive than previously mapped and there is potential for further groundwork to delineate additional mafics.

Field checking in the southeast of the tenement confirmed a mafic intrusive body outcrops on the end of and in contact with rocks of the Harts Range Group previously mapped by the NTGS as the Brady Gneiss. The mafic is a relatively fresh medium grained olivine bearing gabbronorite. On the south side of a hill near its contact with a felsic gneiss pyrrhotite and chalcopyrite are visible in rock chips as fine grained disseminations and rare blebs. On the east side of hill, near its contact with a felsic gneiss and a metre wide quartz vein, small occurrences of gossanous malachite stained rock outcrop sporadically. This location has been named the Baldrick Prospect.

A heritage survey was carried out across Mithril's Huckitta Project which included portions of EL25346.

4.4 <u>Mithril Resources, Work Completed 2009.</u>

During the 2009 reporting period Mithril undertook field work over the southern portion of the tenement which included reconnaissance geological mapping, rock chip sampling, airborne and ground EM and RC drilling. The drilling confirmed the presence of Ni-Cu-PGE mineralisation on the contact of the mafic with the felsic gneiss with grades up to 9m @ 0.5%Ni and 0.4%Cu.

4.5 <u>Mithril Resources, Work Completed 2010.</u>

Work during the 2010 reporting year consisted of a gravity survey and geological mapping. The detailed mapping of the Baldrick intrusion and one rockchip sample of a gabbro at the north-westernmost point of the intrusion suggested a NW plunge to the body. The gravity survey identified a gravity anomaly approximately 400m NW of Baldrick suggesting the presence of gabbro at depth (Figure 2). This anomaly was targeted for ground EM in 2011



Figure 2: Gravity anomaly ~400m NW of Baldrick intrusion, target for Ground EM.

4.6. Mithril Resources, Work Completed 2011-2012.

Work completed during the reporting year consisted of a fixed loop ground EM survey over the gravity anomaly proximal to the Baldrick Ni-Cu prospect and 2012416 line km of a VTEM survey (Figure 3). No significant conductors were identified in the fixed loop survey and all a data can be found in Appendix 1 with a report in Appendix 2. The VTEM survey identified two medium to low priority conductors worthy of ground follow-up. However, these conductors are long and linear suggesting they are stratigraphic in nature (Figure 3).



Figure 3: Location of work completed on EL25346. VTEM flight lines in Blue.

4.7. Work Completed by Mithril Resources Limited, 2012-2013.

Mithril had planned field checking of the VTEM anomalies detected in the 2011 survey and if significant encouragement is detected from that work a ground EM or shallow drill testing of the anomalies was to follow.

Unfortunately however, Mithril did not complete this work and ended up pulling out of the Joint Venture with Iron Mountain Mining Limited in September 2012. Iron Mountain Mining Limited is currently going through the data accumulated by Mithril Resources Ltd in order to plan future exploration programs.

4.8. <u>Work Completed by MMG Exploration Limited and Iron Mountain Mining Ltd, 2013-2014.</u>

MMG Exploration Ltd carried out a detailed review of previous work and available data over the tenement area. The exploration targets for MMG are Ni-Cu-PGE mineralisation hosted within mafic-ultramafic intrusions. Evidence of such processes have been recorded locally within the "Blackadder" and "Baldrick" gabbroic intrusions.

MMG also conducted a detailed , high resolution, low altitude,fixed wing aeromagnetic survey. A total of 1,738.9 line km was flown on N-S flight lines with 50 m spacing and a clearance of 35m .Tie lines were flown E-W with 500m line spacing. They were targeting Lloyd Gabbro Suite intrusions under cover within the Irindina Basin .



(a) Flight lines and tie lines for aeromagnetic survey for EL25346; and (b) survey area coverage w.r.t. tenement boundary (black polygon).

Figure 4: MMG Exploration Ltd, Aeromagnetic Survey: Flight Lines and Survey Coverage area. (Mortimer, L 2014)



Figure 5: MMG Exploration Ltd, Aeromagnetic Survey: T.M.I Image from 2013 Aeromagnetic Survey. (Mortimer, L. 2014).

During 2013 MMG sponsored a Monash University Honours Project which involved the re-assay of stored laboratory pulp samples previously collected by Mithril Resources across the broader Harts Range area. The purpose of this study was to lithogeochemically characterise mafic-ultramafic rocks in the region. At the time Mithril Resources were the Operator of the Treasure JV and with their permission MMG gained access to these pulps for this study. From within the Treasure EL nine pulp samples were re-assayed. During 2014 rock chip samples were collected for remnant magnetism studies. The results confirm that the Baldrick intrusion is negatively remanently magnetised. These results were then used to identify possible analogues within the tenement; however, the results were not encouraging. (**See Appendix 1**).

Although MMG planned additional work to "follow up interesting magnetic features identified" in 2013-2014, they withdrew from the JV in October 2014. MMG considered the anomalies represented small targets only, not in line with their criteria for large deposits (> 20,000,000 tonneage).

From the period November 2014 to February 2015, Iron Mountain Mining Ltd carried out a detailed review of all previous exploration datasets. This was To plan for a 5-6 hole RC Drilling programme in 2015 over targets identified.

5.0. Expenditure.

The total claimed expenditure for EL 25346 for this reporting period was \$ 63,683.

6.0 Planned Work.

IRM Ltd plans during the next reporting period to review and assess all previous datasets. The datasets will be used to generate targets from coincident anomalies.

IRM Ltd plans to follow up with Ground Magnetics for finer target delineation. RC drilling will be carried out on drilling targets, together with downhole EM surveys.

7.0 References.

Mortimer, L, 2014, Annual Technical Report for EL25346 "Treasure Project" 05/02/2013-04/02/2014.MMG Exploration Pty Ltd.

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)

Vakil, P.P, 2013, Treasure Project, EL 25346, Annual Technical Report 5/02/2012-4/02/2013.

APPENDIX 1.

MMG Exploration Remnant Magnetism Study.

APPENDIX 2.

IRM Ltd Surface Geochemistry.