ANNUAL REPORT ON EXPLORATION FOR MINERALS EPM 12458

TENEMENT NAME – Undina South

PROJECT AREA – Cloncurry Project

FOR THE PERIOD 3 OCTOBER 2006 to 2 OCTOBER 2007

SOVEREIGN METALS LIMITED

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Attachments in printed and pdf format

Appendices

SUMMARY

This Annual Report describes all work carried out on EPM 12458 (Undina South) for the annual period ending 2 October 2007.

EPM 12458 (Undina South) makes up part of the project know as the **"Cloncurry Project Area"**. There are a number of granted tenements that make up this project area. All of the tenements are located in the Mount Isa Block of north western Queensland.

The Cloncurry Project Area has potential for both copper-gold mineralisation as well as base metal mineralisation in a number of different geological settings. EPM 12458 (Undina South) is located within the Eastern Fold Belt of the Mount Isa Block.

The tenement was originally granted to Newmont Yandal Operations Pty Ltd on 3rd October 2006. Assignment of 100% of the tenement to Sovereign Metals Ltd was recorded on 6th September, 2007. This report covers the tenures first year after grant. Figure 1 shows the current tenement configuration.

During the first year Sovereign Metals Ltd has undertaken re-processing and interpretation of the regional magnetic and radiometric data. This work has focussed initially on the uranium mineralisation potential within the Toolebuc Limestone formation.

1.0 Introduction

The Exploration Permit for Minerals (EPM) 12458 (Undina South) was granted to Sovereign Metals Ltd on the 3rd October 2006. Sovereign Metals Ltd floated in January 2007 and has set up an office in Townsville to explore this and other tenements within its Queensland tenement portfolio.

During the year Sovereign has conducted a thorough review of the available datasets for the tenement. The initial result from this work identified anomalous Molybdenum, Vanadium and Uranium in Toolebuc Limestone in the far eastern portion of the tenement holding. This has become the focus of the current work.

2.0 Location, Access and Topography

Undina South (EPM 12458) is situated about 40km southeast of Cloncurry. Access is via bitumen road and then on 4WD dirt tracks through the tenement. The area ranges from being flat black soil country which can be difficult to access during the wet season to more undulating ground in the outcropping areas to the south west. **Figure 1** shows the tenement location with roads, tracks and creeks.

Access into the area is relatively good except during the rainy season when the black soil covered portions of the tenement can become impassable.

3.0 Tenure

EPM 12458 (Undina South) consists of 43 sub-blocks in 9 separate areas. The present tenement situation is shown in **Figure 1**.

BIM	Block	Sub-Block
CLON	682	h, n
CLON	684	r, w
CLON	753	f, g, h, j, m, n
CLON	754	e, h, m, n s, t, u, w, x, y, z
CLON	755	a, b, f, g, h, m, n
CLON	756	a, b, f, g, l, m
CLON	826	c, d, h
CLON	827	m
CLON	828	u, v, z
CLON	899	b, g

4.0 Regional Geology

The tenement is located within the Eastern Fold Belt of the Mount Isa Block. The Mount Isa Block is exposed, over a length of about 500km and a width of approximately 200km, as the Mount Isa Inlier. The inlier has been divided into three tectonic units, named from west to east, the Western Fold Belt, the Central Fold Belt (also known as the Kalkadoon-Leichardt Belt), and the Eastern Fold Belt. Mount Isa is within the Western Fold Belt, and Cloncurry within the Eastern Fold Belt.

The block contains three Mesoproterozoic sequences of sediments and volcanics, named, from oldest to youngest, Cover Sequence 1, 2, and 3. The sequences are deposited over a Paleoproterozoic Basement Sequence of gneisses, schists, quartzites and migmatites. The various sequences have been subject to varying degrees of metamorphism and deformation. Granitic intrusions and the Cover Sequence 2 rocks are present in all three tectonic units. The Basement Sequence is also within all three units but it outcrops primarily within the Central Fold Belt. Cover Sequence 3, predominantly shallow marine and fluviatile sediments, is restricted to the Western Fold Belt. Cover Sequence 1, predominantly felsic volcanics, is restricted to the Western and Central belts.

4.1 Local Geology

The tenement is comprised of 9 separate areas and covers predominantly Cretaceous cover sequence rocks which themselves cover the underlying Soldiers Cap Formation. The local geology is shown in **Figure 2** and is included in the attachments.

5.0 Summary of Exploration for Report Period

The work undertaken to date has utilised the regional radiometric data to define an area in the eastern sub-blocks where the Uranium potential is considered

encouraging. Following a site visit of the proposed drill area with the Mitakoodi representatives, a small drill programme was completed to test the Toolebuc Limestone for potential large tonnage Vanadium, Molybdenum and Uranium potential. The following sections outline the work undertaken on the tenement during its first year since granting.

5.1 Site visit and drill clearance

Following the identification of an area where Toolebuc Limestone outcrops in the eastern most sub blocks, a site visit with the local Mitakoodi people was arranged to outline the work proposed including the drill sites. The area is predominantly flat and access good and it was therefore possible to drive along the intended drill lines. There were no significant sites located within the drill area however it was noted that the area had a significant number of the locally called Gumby Gumby, a small tree bearing berries with a red flesh and a black seed. It was noted that the Toolebuc Limestone provides an ideal growing environment for this tree which is used for the treatment of hives and other skin conditions. The Conquer Berry bush is also common in this area. The small edible black berry is sweet and high in nutrients.

5.2 Regional Radiometric Interpretation

The regional interpretation of the open range radiometric data has highlighted the Toolebuc Limestone as a possible host of economic Uranium within the tenement **Figure 3**. The radiometric data was part of the data obtained in the early 1990's when MIM flew the entire Mt Isa Inlier at 200m line spacing. The data has slowly become available over the years and Sovereign Metals Ltd purchased the entire data package earlier in 2007 to better assess it Mt Isa tenement package.

5.3 Rock Chip sampling

A total of 17 rock chip samples were taken (300012-300028) and analysed at ALS using the ME-MS61 method. The results indicated the potential for the area to host a significant Molybdenum, Vanadium and possibly low level Uranium deposit. The results are included in the attached table, Appendix 3. The style of mineralisation within the Limestone unit is referred to as "Roll Front Uranium". Mineralisation is associated with fluids reacting in and around the oxidation front.

5.4 Drilling

An open hole RAB drill programme was undertaken to test the Toolebuc Limestone in late September 2007. The drilling commenced on the 17th September and was completed on the 29th of September. A total of 71 holes were completed using the open hole RAB drilling technique. The holes drilled were URB 001 to URB 071 for a total of 1,944 metres. The maximum hole depth was 36 metres. A total of 505 samples were collected and sent to ALS laboratories in Townsville for analysis using the ME-MS61 method. The location of the drill holes is shown on **Figure 4** together with the mapped surface boundary of the outcropping Toolebuc Limestone within the lease boundary.

The samples taken were predominately 4 metre composite grab samples. A further 93 single metre samples were taken in November 2007 following the receipt of the first composite sample results. These were submitted for the same analysis to gain a better understanding of the Mo-V-U mineralisation.

The results from the drilling although received after the anniversary date are being discussed briefly in this report. Further interpretation of the results will be undertaken in the current report period.

Peak values of significance included;

Silver	5.99ppm
Uranium	69.4ppm
Vanadium	3070ppm
Molybdenum	316ppm

A table of all results is included in Appendices 1 and 2.

6.0 Exploration Potential & Recommendations

During the past twelve months the Uranium prospectivity across the tenement has been assessed and this will form part of the exploration approach into 2008. Some portions of the tenement also cover Soldiers Cap Formation where there is good prospectivity for both Copper and Gold mineralisation. Reconnaissance work will also target these areas in 2008.

Exploration approach for the 2008 calendar year requires;

- Site visits of the southern leases by the relevant Native Title parties to enable access to the ground for undertaking mapping, soil and rock chip sampling.
- Meeting with relevant pastoral holders to notify them of our intended activities.
- Purchase of digital satellite data to help minimise unnecessary ground disturbance and enable better evaluation and understanding of both previous geochemical data and data yet to be collected based on regolith interpretation.
- Drill or auger test any identified mineralised corridors.

7.0 Conclusions

The work during the first year of tenure has identified areas of Molybdenum and Vanadium potential within the Toolebuc Limestone. Further assessment of this style of mineral occurrence will be ongoing.