Santonian Resources

Santonian Resources Pty Ltd

First Annual Report for EL32248

The Aladdin Project

V – Fe – Ti – Al

19/03/2020 to 18/03/2021

Prepared by Holdfast Exploration Pty Ltd

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1 Abstract

Mineral Exploration Licence (EL) 32248 was granted to Santonian Resources Pty Ltd on 19th March 2020 for a term of 6 years. The Aladdin Project is located 40 km South East of the settlement of Top Springs and 240km South from Katherine. Historically the area has been suspected to have bornite mineralisation due to iridescent stains found within the laterite. Recent field trips conducted by Santonian Resources have found that the erroneous reports are mineralised laterite that comprises of high anomalous Vanadium, Iron, Titanium and Aluminium content. Furthermore, metallurgical studies have also shown that the mineralisation can be economically processed through leaching and magnetic separation processes. The impact of COVID-19 border restrictions and significant rains limited access to EL 32248 to conduct the planned exploration activities that consisted of reconnaissance rock chip sampling. The work program proposed for the first operational is planned to be undertaken in year 2 along with a subsequent drilling program orientated around the areas of interest to analyse the grade depth and extent of the mineralised laterite.

2 Copyright

3 Location

The Aladdin Project is located 40 km South East of the settlement of Top Springs and 240km South from Katherine. The tenement comprises of 249 blocks covering an area of 818 square kilometres within the Montejinni East, Dungowan and Birrimba Pastoral Leases. Tenement EL 32248 is shown in Figure 2

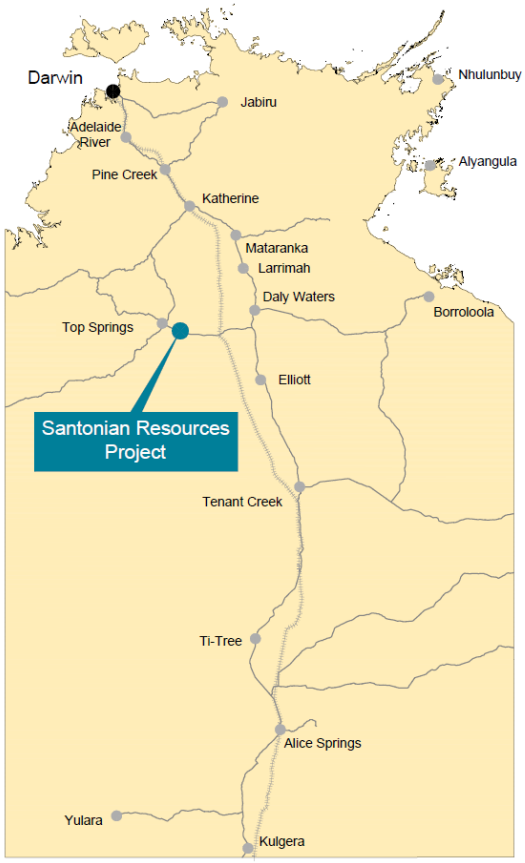

Figure 1: Locality Plan

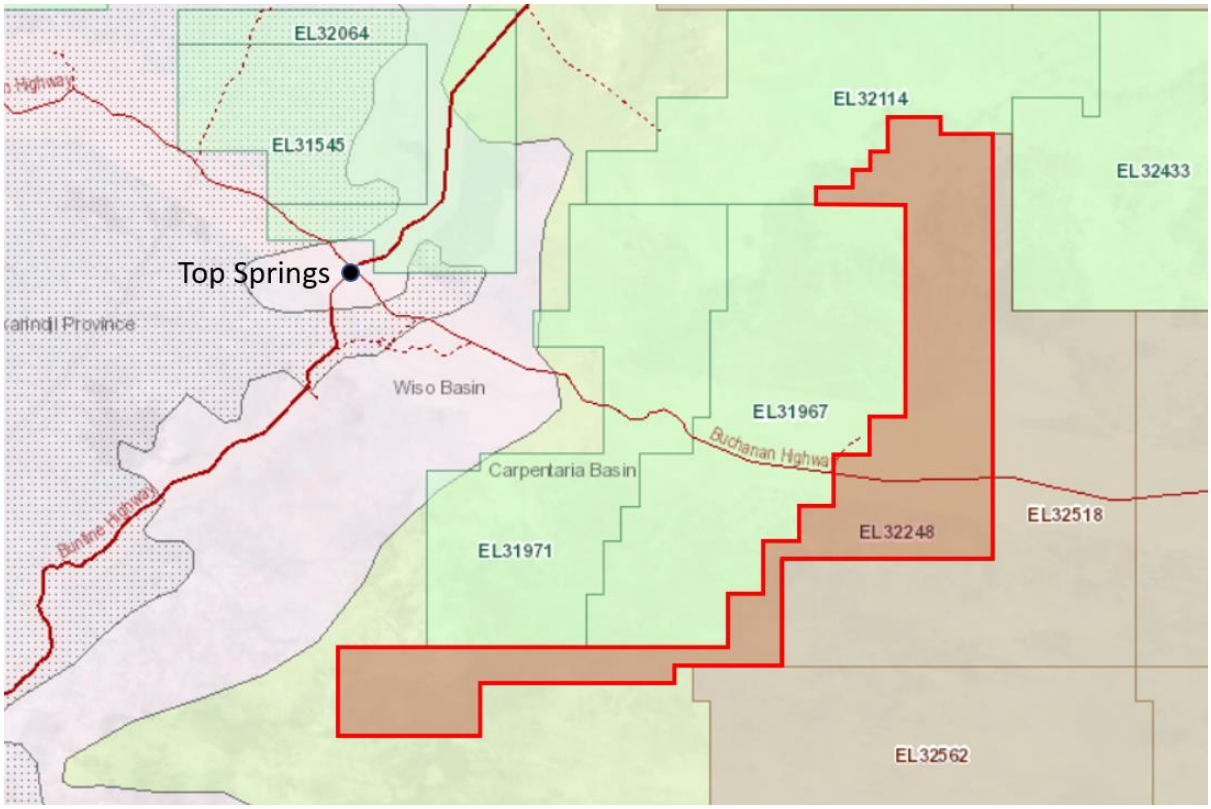

Figure 2: Tenement Location

4 Title History

EL 32248 was granted on to Santonian Resources Pty Ltd, a 100% wholly owned subsidiary of Holdfast Exploration, on 19th March 2020 by the Department of Primary Industries and Resources.

EL 32248 was applied to cover the extremities of the interpreted mineralised laterite containing anomalous Vanadium, Iron, Titanium and Aluminium content.

5 Access

The Aladdin Project is primarily accessed by graded station tracks via the Buchanan Highway using 4x4 vehicles. Access to the project can become limited during seasonal monsoons and heavy rains between the months of November to April.

6 Geological Setting

The Daly Waters geological sheet (SE 53-1) shows an area that is geomorphically and tectostratigraphically dominated by several distinct and denuded Cretaceous-age lateritic-bauxite palae-land surfaces. Regionally, the topography comprises of isolated (dissected) low-amplitude mesas

separated by Tertiary drainages. The mesa tables appear to be capped by a laterally contiguous ferrigunous horizon that may be a potential host to base minerals. Multi-element anomalies comprising chemically inert and immobile elements (e.g. Ni, Al, V, Ti, REE), typically concentrate in laterally extensive ferruginous duricrust horizons lying atop bauxitic plateaux.

The stylised cross section shown in Figure 4 is an interpreted understanding of the stratifications that underly the lateritic occurrences. Isolated mesas form the remnant Cretaceous surface topography where Cambrian-aged Limestones and tholeiitic volcanics underlie the Cretaceous Sediments. The area is technically stable which is an important factor in the development of lateritic regoliths.

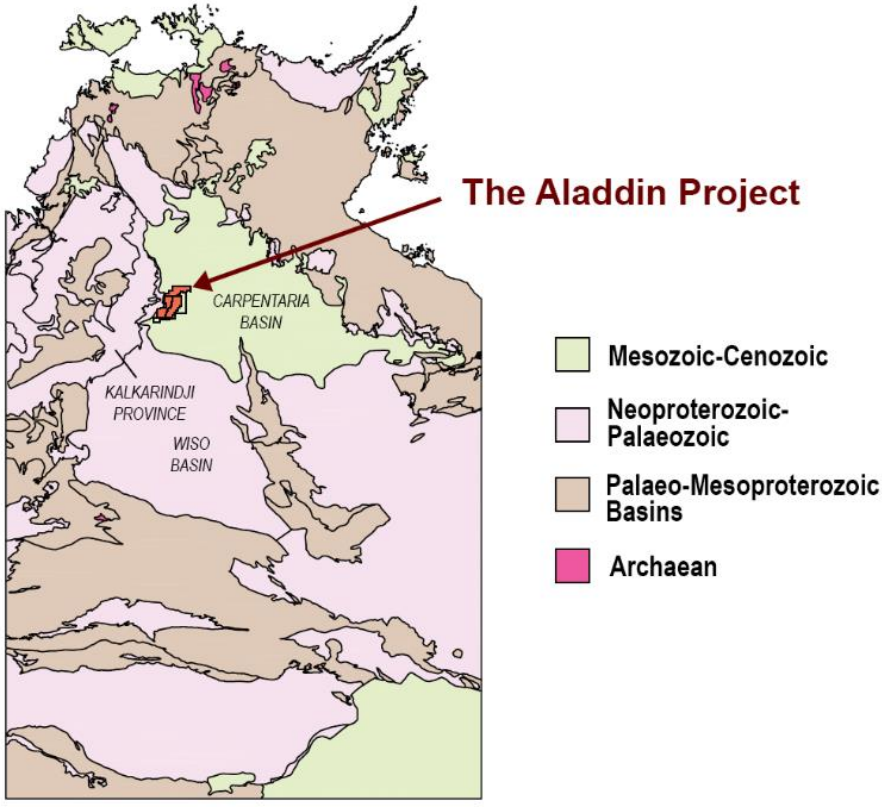

Figure 3: Regional Geology

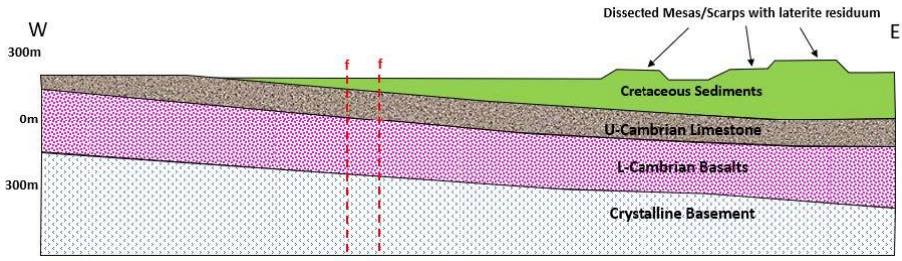

Figure 4: Stylised cross-section

An interpretd regional geological model for such enriched lateritic residua on relict regolith landforms is shown in Figure 5.

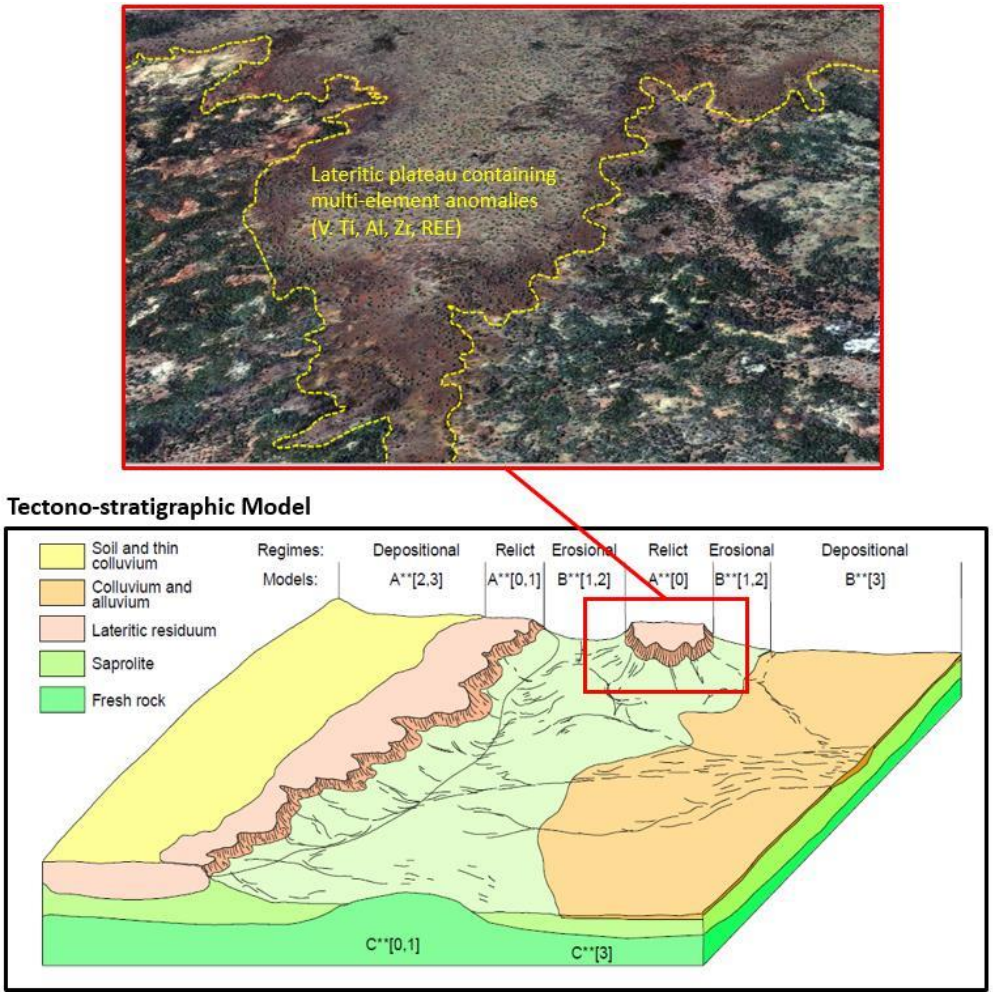

Figure 5 - Interpreted Regolith-landform Model of the Project Area

7 Exploration History

Historically, the Daly Waters geological map, published in 1969, noted iridescent stains in laterite leading to erroneous reports of copper mineralization in the area Brown (1969). It was believed that the iridescent stains resembled bornite mineralisation, however, geochemical analysis had shown low copper content throughout the laterite. The laterite has since been used for road construction material where numerous roadside quarries are present.

Other commodities of interest within the vicinity were explored by R W A Crowe in search for Coober Pedy style opals, Stockdale Prospecting Ltd and Aberfoyle Exploration Pty Ltd in search for diamonds and C.R.A. Pty Ltd in search for gold mineralisation.

8 Geological Activities and Office Studies

The initial reconnaissance and rock chip sampling across EL 32248 was compromised for the first operational year due to COVID19 border restrictions and significant rains experienced during the 2020/2021 wet season. The limitation of access restricted Santonian's field activities to the drilling program that took place in the adjacent tenement EL31967, that also forms part of the Aladdin Project. Reconnaissance and rock chip sampling proposed for the first operational year is planned to be undertaken in year 2 along with a subsequent drilling program orientated around the areas of interest.

9 Summary

The Aladdin Project has shown high anomalous Vanadium, Iron, Titanium and Aluminium content through multiple field trips extending throughout the mineralised laterite sampled from adjacent tenements EL31971 and EL31967. Furthermore, preliminary metallurgical test work warrants that the style of mineralisation can allow Vanadium to be extracted from economical mining processes including magnetic separation and leaching. In addition, the thin section analysis reinforces the metallurgical test work demonstrating that the Vanadium content is distributed throughout the laterite.

Although the first-year operation program was compromised by COVID-19 border restrictions and significant rains during the 2020/2021 wet season, the first year work program is to be pushed forward to year 2 combined with subsequent diamond drilling of areas of interest to further analyse the grade, depth and extent of the mineralised laterite.

10 References

Brown, M. (1969). Daly Waters, Northern Territory : explanatory notes. Canberra.