

Final Report EL32879_2023_S

1. BIBLIOGRAPHIC DATA SHEET

Project Name: George Creek Project
Title ID: EL 32879
Date: 31 / 07 / 2023
Type: Surrender
Report Period: 15/07/2022-13/07/2023
Company: Base Exploration Pty Ltd
Author: Du Song
Report Date: 31 / 07 / 2023
Map Sheet: 1:250k PINE CREEK
1:100k BATCHELOR
Target Commodity: Uranium, lithium

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2. ABSTRACT

Location: The tenement is located at a range of uranium occurrence that occur just south from the town of Adelaide River. They follow to the west of Dorat Rd, state route 23.

Geology: The uranium mineralization at George Creek is described as localized by weak shear in greywacke; it closely resembles the nearby Adelaide River type of deposit but is much smaller. The rocks, sandstone and siltstone which form part of the east limb of a large north-plunging syncline also belong to the Lower Proterozoic Burrell Creek Formation. The radioactive anomaly within the 3X background contour covers an area of approximately 4 acres.

Work Done: Literature review. No field working has been carried out during the reporting period.

Result: No significant result. The tenement is surrendered.

Conclusion: The ground does appear to represent unconformity related sandstone hosted Uranium mineralisation, which significantly, hosts much of the NT's important deposits.

Past exploration reporting on proximal deposits also indicates these may not have been adequately tested and may not have had modern exploration techniques applied which may suggest there is further technical upside to exploration in the area.

However, not much new field work has been undertaken due to funding's and low staffing issue with newer exploration projects during the prevailing softness in the mineral industry.

3. INTRODUCTION

The George Creek occurrence represents a former uranium mine with historically significant grades. The area is predominantly comprised of privately owned land or falls within the Crown Lease Perpetual area. The uranium occurrence in this region has shown promising potential.

Uranium mineralization in the area has been discovered in four main prospects: Adelaide River, George Creek, Touhys, and Happy Valley. The Adelaide River and George Creek prospects were mined from 1950–1957. Uranium mineralization at Adelaide River exists in the metamorphosed sedimentary units of the Lower Proterozoic Burrell Creek Formation. The Burrell Creek Formation is represented by siltstone, greywacke and conglomerate and mineralization has been localized where minor shears intersect two distinct sandstone beds which are separated by a unit of fine-grained siltstone.

The uranium mineralization at George Creek is described as localized by weak shear in greywacke; it closely resembles the nearby Adelaide River type of deposit but is much smaller. The rocks, sandstone and siltstone which form part of the east limb of a large north-plunging syncline also belong to the Lower Proterozoic Burrell Creek Formation. The radioactive anomaly within the 3X background contour covers an area of approximately 4 acres. Torbernite is found in weak shears, joints and bedding-plane fractures at the surface. Torbernite and uraninite have been intersected by diamond drill holes.

Uranium mineralization is associated with Au mineralization at both the George Creek and Adelaide River prospects.



Figure 1 Location of the Tenement on Topographic Map

4. GEOLOGY

The regional geology comprises well-bedded siltstone, greywacke, and conglomerate of the Burrell Creek Formation, which is folded into a series of upright, tight, north-trending and south plunging folds at the Adelaide River mine. In the George Creek area the folds are gently north plunging. The Adelaide River mine lies in the western limb of a syncline where bedding dips 60° towards 240° (Plumb, 1960). The mine lies within a 3X background radiometric anomaly extending along strike for 570 metres. An early fault set relates to mineralisation trends north to north-northeast and is offset by a later set of east-northeast faults. Four ore zones are known with the best, the Black Lode, occupying a fault that dips 70° towards 090° , with a reverse (east side up) movement sense. Mineralisation exists only where the fault intersects a 15-metre-thick coarse-grained greywacke bed. The ore lode plunges 45° south and has an average width of about 1.5 m. Pitchblende is disseminated in the country rock adjacent to the fault and forms coatings on joint and fracture surfaces associated with quartz veining. Accessory minerals include abundant pyrite, chalcopyrite and lesser arsenopyrite, marcasite and linneite (Plumb, 1960).

The George Creek mine lies in the western limb of a north-plunging anticline with an axis about 0.5 km to the east, with bedding dipping 30° toward 280° . Sub-vertical northwest-trending faults and related fractures control mineralisation. The geometry of the largest ore pod suggests it was formed in a dilational jog. Ore was also formed at the intersection of a fault and coarse-grained greywacke. Touhy's prospect is very similar to George Creek with respect to geology and structure. The workings

are enclosed by a 2X background radiometric anomaly centred about the shaft where visible torbenite is common and autunite has been recognized previously.

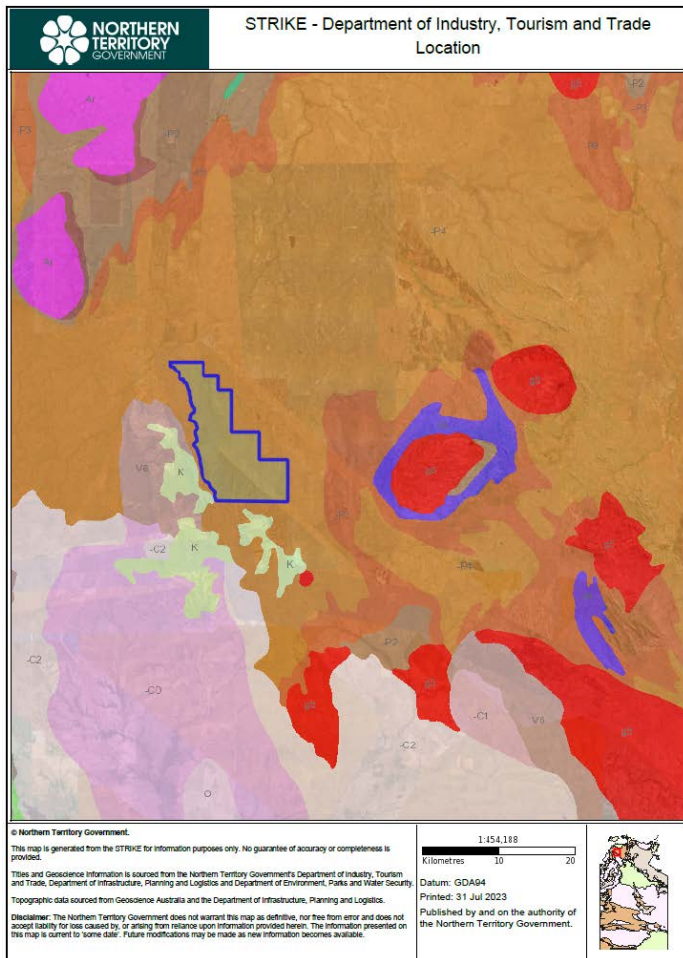


Figure 2 Tenement on Geological Map 1:250k

5. PREVIOUS EXPLORATION

EL7792 was granted to Alastair John Shields on 6 January 1993. Main commodity search was gold. Found good prospectively for gold but due to topography found the survey too difficult thus relinquished.

Work done included geological mapping, stream sediment assays and sampling area. Showed gold mineralisation was likely around the northern area.

Geology in the area: Early Proterozoic rocks mainly consist of interbedded greywackes and shales. Some of the shales exhibit colour banding at the surfaces, with alternating green and red colours. Shales are black and carbonaceous. These shales also can be quite radioactive and fluoresce quite strongly under ultraviolet light. These shales beds could be used as marker bed for geological mapping. A north pitching anticline is indicated within the exploration license area. The axis and its orientation has been established near the George Creek but cannot be confidently positioned to the north. Overlying the Early Proterozoic rocks are conglomerate, sandstone and shale, all of Middle Proterozoic age. These rocks occupy the Western part of the exploration licence area. They form a tabletop or mesa and are the highest part of the area topographically.

6. CURRENT EXPLORATION

Based on the literature review, the ground does appear to represent unconformity related sandstone hosted Uranium mineralisation, which significantly, hosts much of the NT's important deposits.

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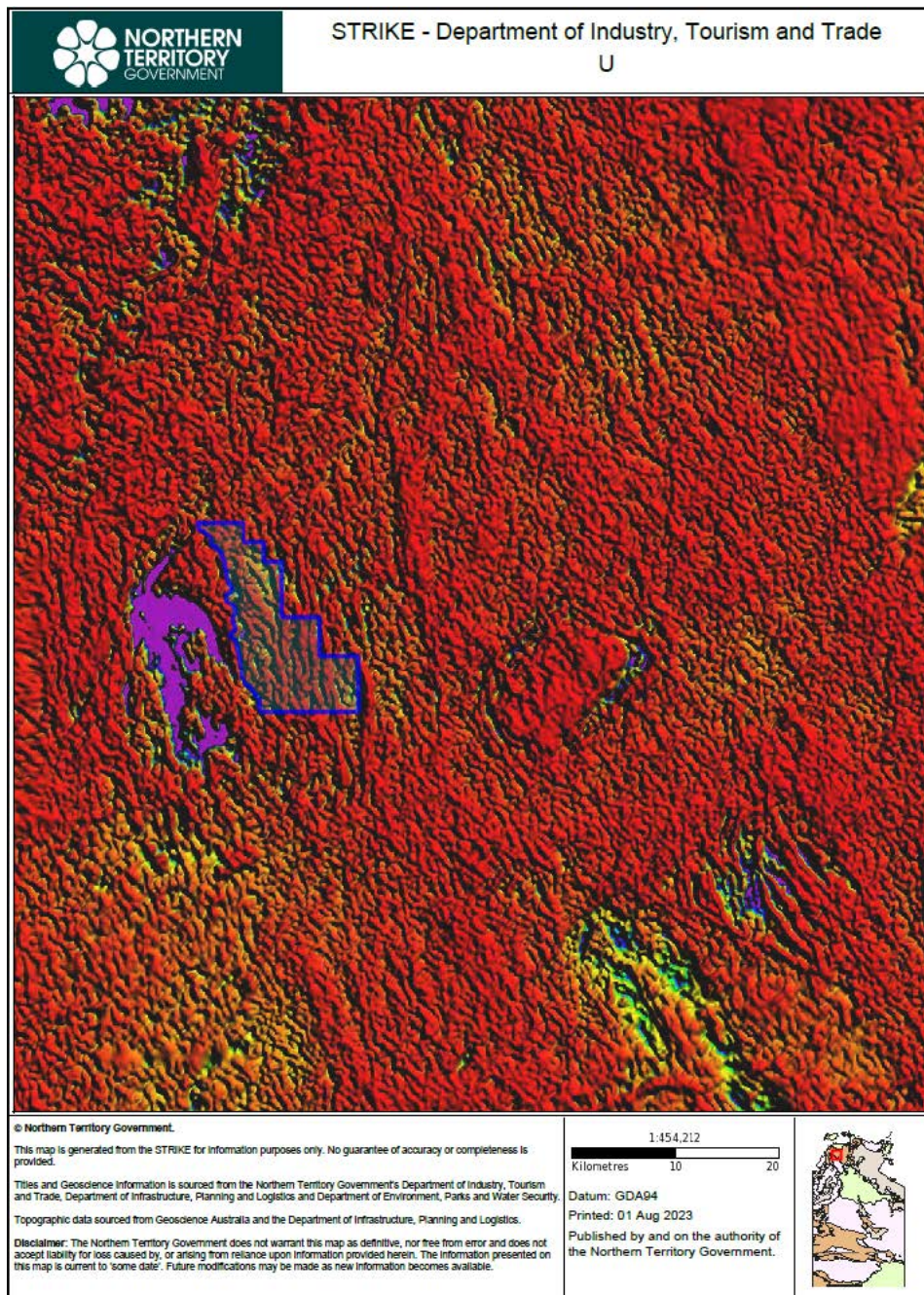


Figure 3 Tenement on Geophysical Uranium Map

7. CONCLUSION

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