

ASX Announcement 31st October, 2019

## <u>ACTIVITIES REPORT – SEPTEMBER 2019</u>

#### Overview

Work ensuring that the next stage of drilling, to support the development of the Westminster Project, can proceed effectively, was undertaken during the quarter. To this end a set of planning and drill control sections, to systematically test for the continuation of mineralisation, for the project is now well advanced. The level of management planning and technical control available to support the next stage of resource extension drilling is now considered to be at a high level.

Fundamental research work continued in association with the recently acquired project areas at Barkly and the application at Northern Tennant Creek. The new work considers the influence of forces on ore-body formation by investigating the expected patterns resulting from the influence of incoming linear stresses and the dissipation of energy. The objective being to provide an additional tool that is useful for further focusing exploration to centres of substantive mineralisation within the new project areas.

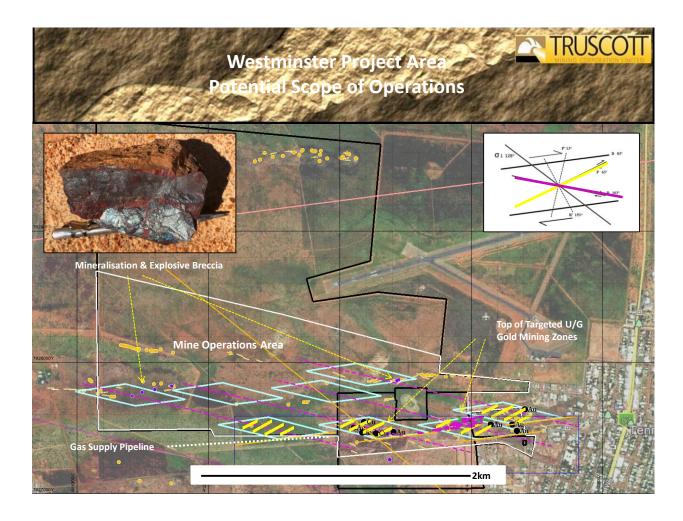


Figure One: Westminster Project – Proposed Mining Operations Area



#### **Potential Scope of Operations**

The Westminster Project Area (Figure 1) contains an initial mineral resource, the location of which is indicated by the drill intersection pattern in figure two as part of Ore Body One. It can be observed that this Ore Body straddles MA 25952 and MLC 511.

The potential to define a large ore body within the substantial mineralised zone at the Westminster Project is evident, with over two kilometres of strike length and repetitions of lines of mineralisation.

Truscott's ongoing research indicates that whilst the Tennant Creek mineral deposits have historically been described as Iron Oxide Copper Gold (IOCG) systems, they also exist within a major strike slip shear that is Orogenic in scale and provides a structural setting for mineralisation of considerable extent and depth.

Planning has commenced to provide for the establishment of an increased mining operations lease holding, sufficient in size to provide for the area necessary to support mining operations. The irregular shaped area has dimension that approximates to an area of three kilometres by one kilometre. A natural gas supply pipeline passes through the south western corner of the extended lease and the Tennant Creek power station is a further 500 metres to the south.

A southern line of mineralisation with shear elements oriented on 083° (D) parallel to Udall road, hosts the initial four main targets for underground mining. A second line of shear located 300 metres to the north exhibits all the structural elements evident in the southern line of shear. In addition to evidence of fluid channels along structure, it also has significant sections of explosive breccia including zones with large clasts of ironstone.

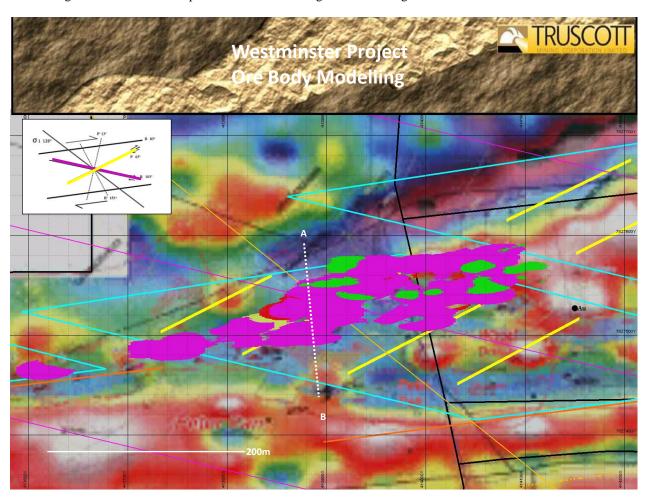


Figure Two: Westminster Ore Body One - Block Model Location



### **Ore body Modelling**

Recent work has concentrated on de-risking future drilling by providing a clearer indication of the distribution of gold mineralisation. The location of the detailed three dimensional model (Figure 2), describing ore-body one of the Westminster Project, can be referenced relative to the structural framework over the gravity image.

An initial block model for Ore Body One has been developed utilising the structural constraints defined by Truscott for the primary purpose of determining the direction that mineralisation is plunging, in order to target future drilling.

The composite picture (Figure 3) includes a projection of the block model and a section orthogonal to the strike slip direction  $083^{\circ}$  (D) to illustrate the dip of the gold mineralisation. The actual plunge of the subsidiary zones containing the gold mineralisation is however in the direction  $063^{\circ}$  (P) as illustrated in figure two.

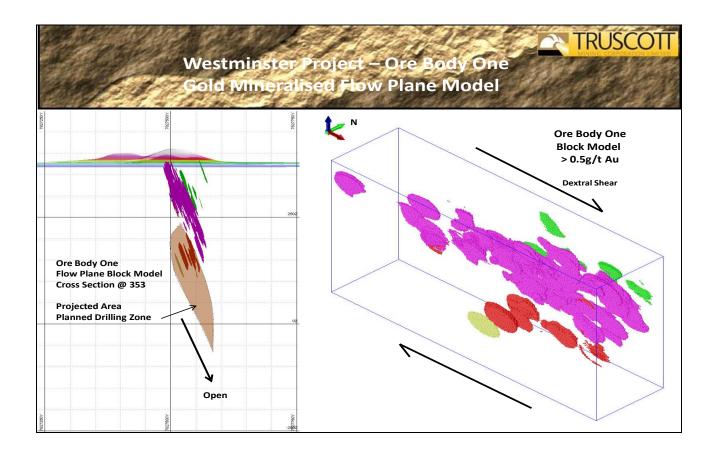


Figure Three: Westminster Ore Body One - Gold Mineralisation. Modelling

## **Assessment of Drilling to Date**

The poly-metallic nature of the mineralisation is demonstrated (Figure 4) from a number of intersections from within cross sections of ore body one. Other minerals assayed, which may become significant in some parts of the system, include cobalt, copper, and selenium. The principal focus at this time remains justifying project development on the basis of high grade gold mineralisation alone.

Truscott has already reported drilling wide zones of mineralisation at depths down to 200 metres, however significant parts of the system between 100 and 200 metres are still considered mineral inventory with further drilling required to raise the level of confidence sufficiently to allow conversion to resource status.



Based on the widths of mineralisation returned from deeper drilling within the ore zone to date, historical mining operations along strike, and in other parts of the mineral field, the preferred target depth for the next level of high grade mineralisation is between 200 and 350 metres below surface.

Further field observations and structural assessment indicates that the Westminster Gold Project has the potential to become an even larger deposit, with offset repetitions of ore zones at depth

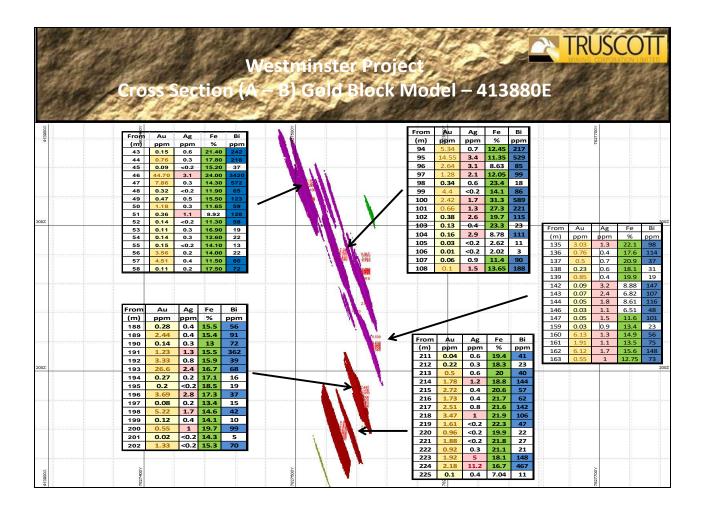


Figure Four: Westminster Ore Body One - Poly-Metallic Mineralisation

#### **Definition of Mineralisation Flow Channels**

The Westminster project appears to be located on the northern side of a large anticline fold such that the sediment bedding plains to the depths currently drilled are observed to be linear. The bedding plains are measured as dipping 65-70 degrees to the North. Discordant shear has interacted with the pseudo bedding/shear to develop flow plains for mineralisation with a plunge of 12-15 degrees to the West.

Detailed logging of drill data indicates that the preferred mineral flow planes are in the sediment profile and exhibit a vertical separation of 35 metres with true widths higher up in the system of the order of seven metres. It is anticipated, based on observations at other deposits, that there is potential at some locations for the upper and lower flow planes to coalesce resulting in true widths of 35-40 metres. These pairs of flow channels also exhibit a larger vertical separation of 105 metres.

The parallel flow channels described above can be utilised as an outer or primary constraint set, in that all the targeted economic mineralisation is included within their parallel boundaries.



## **Definition of High Grade Ore Zones**

It appears that a strike slip corridor driven by activity of Orogenic scale has acted on the Tennant Creek Gold Field. From an exploration targeting perspective, the interaction of these elements has the potential to determine where zones of dilation, shearing and mineral concentration are more likely to occur.

The progression of elements (Figure 5) of dynamic change within a strike-slip corridor is well documented in academic literature where it has been supported by fundamental laboratory experiments and field observations.

Describing the constraint sets that act to delineate the high grade ore zones requires an understanding of both the elements of a series of shearing and dilation events and the order in which they occurred, their paragenesis.

Truscott has described the expected resultant shear and dilation elements that would be produced during the action of strike slip shear. The application of the theoretical model to actual findings has been confirmed by mapping the discrete resultant elements within the project area.

Early in D2 strike–slip structural event anticline folding on P  $(063^{\circ})$  creates the zone of interaction in which ore body formation occurs. Ongoing strike-slip activity of the D2 event then results in the formation of shearing and dilation that is discordant to the earlier stratigraphy. Initially reidel shears on R  $(103^{\circ})$  and subsequently cross shearing on P  $(063^{\circ})$  provide the focus for zones of mineral concentration and high-grade gold.

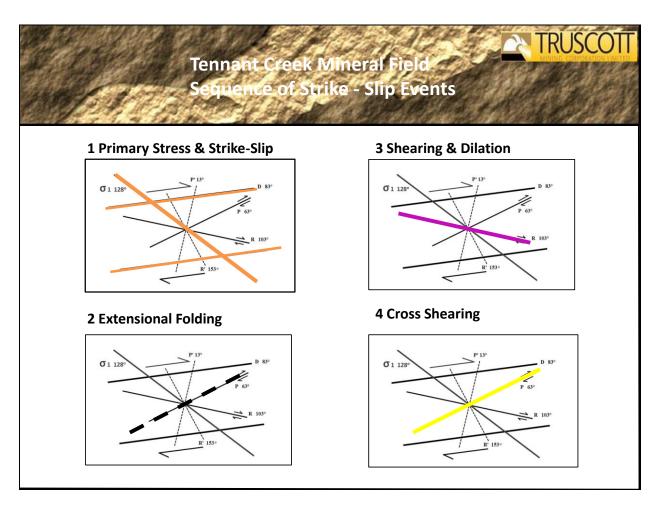


Figure Five: Strike-Slip Paragenesis



#### **Future Drilling Initiatives**

The complexity of the ore systems within the Tennant Creek Field have been a barrier to planning exploration strategies, ore body modelling, and design of mining systems. Westminster is no exception to these challenges and is complex at first observation. Truscott now understands that while the system is complex it is well ordered due to the large scale events that have influenced its formation.

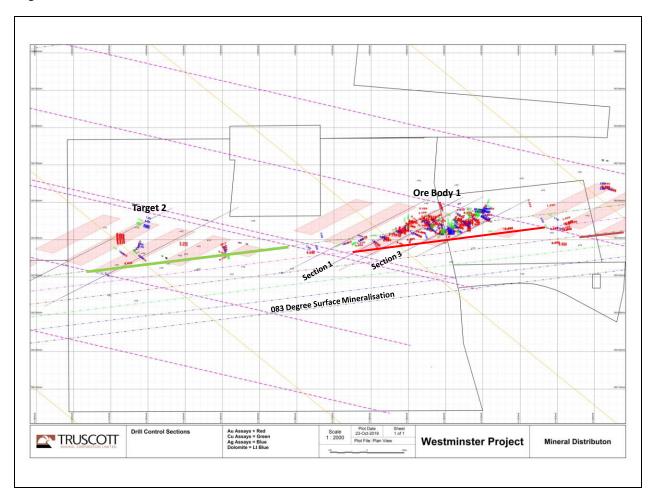


Figure Six: Plan View - Drill Control Sections

Recent analysis and ore body modelling has determined that the strongest continuity of gold mineralisation can be demonstrated as being along dilation elements associated with the 063° (P) direction. Work is therefore now ongoing developing a number of drilling control sections (Figure 6) for both ore body one, and mineralised target two located 700 metres west of ore body one.

The mineralisation of the 083° (D) direction has been observed across the extent of the tenement, and as illustrated in figure six (green, purple, brown) the leading edge where particular flow plains encounter shearing and mineralisation is different for each of the target zones.

The target zones for gold mineralisation are illustrated for drill section three (Figure 7). These target zones are considered to be coincident with the cross cutting ironstone emplacement associated with the  $103^{\circ}$  (R) direction.

In this drill section, it is evident that the upper level is already significantly defined but that the second level remains completely untested, with the few holes that even approach the required depth being drilled either in front of, or behind the target.



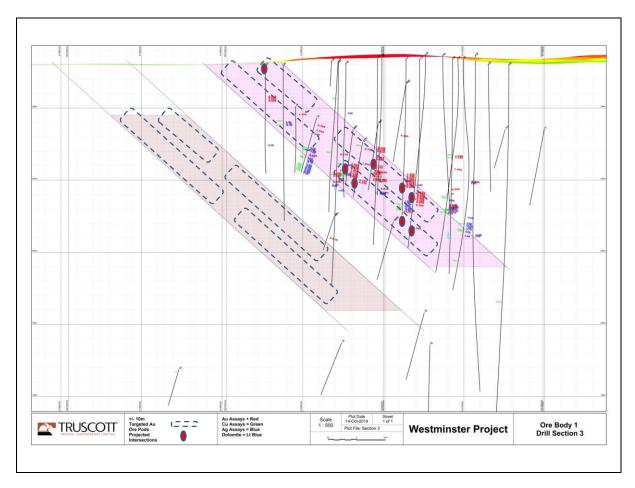


Figure Seven: Ore Body One- Section 3 – Target Zones on 063<sup>o</sup>(P)

The target zones for gold mineralisation are illustrated for drill section one (Figure 8). In this section a number of existing drill-holes partially define the target zones for the upper and second levels. A third level is indicated, though initial drilling will focus on more complete definition of the upper two.

The potential for substantial accumulations of mineralisation at depth is recognised, with any of the individual ore pods, as illustrated in the drill sections, being approximately 60metres by 60 metres with possible mineralisation thicknesses to 35-40 metres.

The significant overall consideration is, the extent of the technical analysis completed to produce these sections, and level of control they provide over targeting future drilling for ore resource extension drilling.

#### **Risk Management**

The application of the research findings, in practical terms, means that Truscott is now completing a set of planning and control sections on which to systematically test the continuation of mineralisation for the Number One ore-body and the other targets associated with the Westminster project.

To date, drilling within the mineralisation at Ore Body One has substantively been limited to approximately 200 metres below surface, at which depth, mineable grade gold intersections continue to be recorded.

It is also evident from the drilling that wider intersections of mineralisation are being encountered at depth. It is common for mineralisation intensity to substantially increase between 200-300 metres below surface as illustrated in (Figure 9) at the smaller Chariot Mine, located five kilometres along strike.



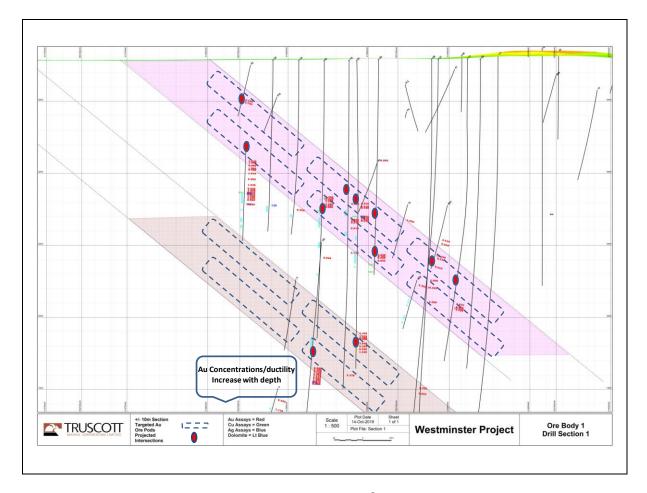


Figure Eight Ore Body One- Section 1 – Target Zones on 063<sup>o</sup> (P)

#### **Project Scope**

All work completed to date continues to build a picture of substantial mineralisation, with the Westminster Project having the potential to become a significant mineral resource. It is estimated that 50-60,000 metres of drilling would be required for the Westminster systems to be drilled out sufficiently to support an initial 10-15 year production profile.

The proposed drilling metres, targets only mineralisation within part of the southern mineralised zone for the Westminster Project area. Additional drilling to be funded from future production revenues would be required before the overall scale of the system could be more fully characterised.

#### **Research & Strategic Initiatives**

Truscott previously observed the concordant geological and geographical linear structures can be observed throughout the Central Northern Territory. The lineation observed on 128° (Sigma 1) was treated as being the principal stress direction that is a consequence of inter-plate collision.

Crustal thinning appears evident on the sigma one lineament passing through Tennant Creek, with basement rocks closer to surface and adjacent basin development. The focus of stress development associated with uplift along Sigma one (128°) provides the potential for rising fluid intrusions.

Structural theory suggests that ongoing primary stress (Sigma 1) has the capacity to develop major strike slip corridors which exhibit characteristic structural elements. Early D2 compression folding is initially aligned with  $063^{\rm O}$  (P) as the strike slip shear corridor develops. Ongoing dynamic action within the central corridor allows for the movement of mineralised fluids, which concentrate in resultant reidel shears  $103^{\rm O}$  (R) and late stage cross shearing that is



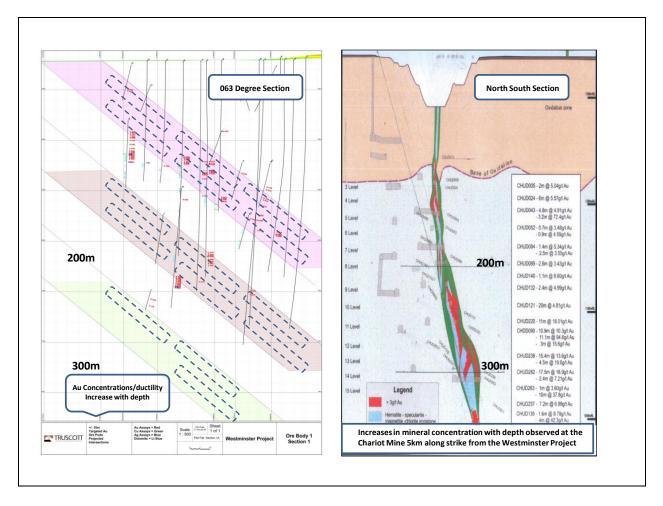


Figure Nine: Development of Mineral Concentration with Depth

Truscott's studies across the North Australian Craton also utilised fractal analysis in an attempt to provide a link between structurally controlled fluid flows and ore deposit locations. The methodology utilised has a basis in physical observations and empirically derived mathematics that describes the relationship between fractal windows of different scales.

Fractal observations point to a stress continuum that has preconditioned the older rocks and subsequently been a controlling influence focusing mineral flows and later ore deposit formation. It follows that the shearing and fluid pathways set up by the stress regime will commonly be discordant to later geological formations.

For the Tennant Creek region, the spatial arrangement of repeating patterns of sets of characteristic structural elements is clearly observable (Figure 10) against the first vertical derivative of the magnetic image. For the purposes of analysis these discrete observational windows are described as fractal one of the stress continuum that has preconditioned basement rocks.

Utilising a fractal one scale of reference window, a review of Central Tennant Creek was undertaken. This demonstrated that the most mineralised quadrant of the window was the Juno, Peko, Nobles Nob cluster, with ore resources of circa three million ounces of gold. It can also be observed that all deposits within the cluster have strong correlation to major  $P(063^{\circ})$  elements.

Truscott has recently taken the strategic initiative to acquire tenure that covers similar structural settings to the core mineralised quadrant at Central Tennant Creek. The extent to which the two new zones (North Tennant & Barkly) demonstrate the structural similarities to the Central Tennant Creek cluster is illustrated in figure ten.



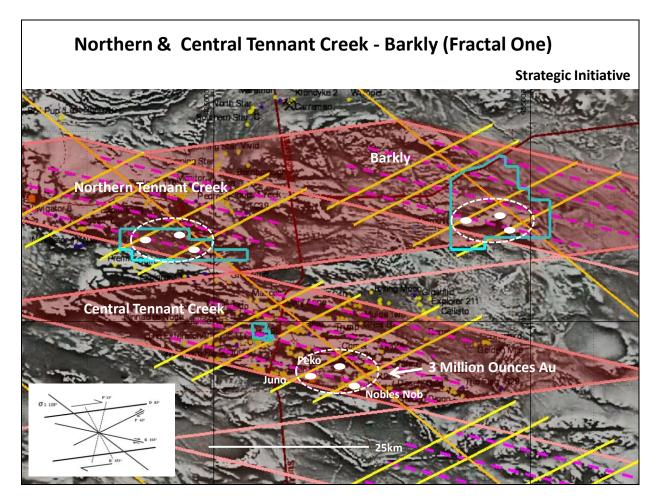


Figure Ten: Target Generation – 1VD Magnetic Image

Fundamental research work continues in association with theses recently acquired project areas at Barkly and Northern Tennant Creek. This work considers the influence of forces on ore-body formation by investigating the expected equilibrium established between incoming linear stresses and the dissipation of energy.

Early investigations suggest that energy levels described by isoforms of strained logarithmic spirals appear to generate useful patterns that act as indicators for the distribution of mineralisation. A tool with possible applications for further focusing exploration to centres of substantive mineralisation within the new project areas.

## Peter N Smith Executive Chairman

Competent Person's Statement: The contents of this report, that relate to geology and exploration results, are based on information reviewed by Dr Judith Hanson, who is a consultant engaged by Truscott Mining Corporation Limited and a Member of the Australasian Institute of Mining & Metallurgy. She has sufficient experience relevant to the style of mineralisation and types of deposit under consideration and to the activity being undertaken to qualify as a "Competent Person", as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Dr Hanson consents to the inclusion in this presentation of the matters compiled by therein in the form and context in which they appear.

Regulatory Information: The Company does not suggest that economic mineralisation is contained in the untested areas, the information relating to historical drilling records have been compiled, reviewed and verified as best as the company was able. The company is planning further exploration drilling programs to confirm the geology, structure and potential of untested areas within the Westminster Project area. The company cautions investors against using this announcement solely as a basis for investment decisions without regard to this disclaimer.



# Appendix 1

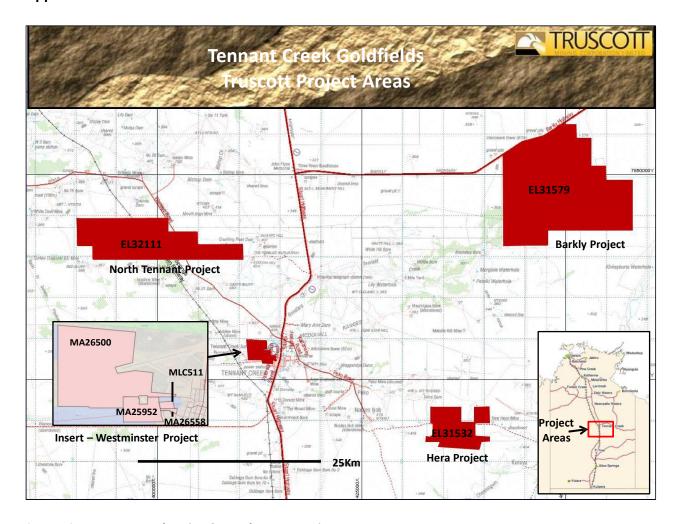


Figure Nine: Truscott Exploration & Development Projects

# Mining Tenements Held at 30 September 2019 (Table 1)

Project		Interest at	Interest at	Acquired	Disposed
Tenement		Beginning	End		
Westminster	Northern Territory				
MLC 511		100%	100%		
MA25952		100%	100%		
MA26500		100%	100%		
MA26558		100%	100%		
Hera	Northern Territory				
EL 31352		100%	0%		100%
Barkly	Northern Territory				
EL 31579		100%	100%		
North Tennant	Northern Territory				
ELA 32111		100%	100%		