TRUSCOTT MINING COPORATION LTD

(ABN 31116 420 378)

WESTMINSTER PROJECT

COMBINED ANNUAL REPORT FOR THE PERIOD

26th October 2013 TO 25th October 2014

LICENCES: MA25952, MA26500, MA26558

TENNANT CREEK REGION

TARGET COMMODITIES = Au, Ag, Cu, Bi, Pb. Zn.

1:250 000 SHEET TENNANT CREEK SE-14

1:100 000 SHEET TENNANT CREEK 5759

Author :Dr J.A. Hanson

Date Due :27th October 2014

TABLE OF CONTENTS

1: Abstract

During the current year Truscott has continued to advance its in-house understanding of the structural controls over mineralisation within the central Tennant Creek high-grade gold field, through continued research and analysis initiatives.

At the Westminster Project observations and analysis generated from the drill programs and structural mapping undertaken during the year have provided feedback to allow continuous assessment and refinements to be made to the structural model at a project and regional levels.

For the Westminster Project a detailed assessment of the constraints on ore geometry is being developed which describes the expected location of potential high grade mineralised target zones prior to drilling.

The company's research into the structural controls and mineralising events continues to increase the effectiveness of the structural model being developed as a tool to successfully predict the sites for high grade gold mineralisation.

A series of stacked Ironstone arrays and accompanying mineralization are mapped as outcropping along the extent of the Westminster active exploration area. Each of the mineralised arrays has the potential to host a significant Tennant Creek style ore body at depth and accordingly they are each currently being assessed as such.

2: Location and Access

Tenements MA25952, MA26500 and MA26558 are located approximately 4 km West of Tennant Creek (Figure 1). Access is via Udall Road and by way of a number of station tracks (Figure 2). The tenements lie within the Tennant Creek 1:250 000 sheet and the Tennant Creek 1:100 000 sheet areas. The tenements are wholly contained within the Tennant Creek mineral Field which falls predominately within the Tennant Creek Pastoral Lease, but does encroach on small portions of vacant crown land.

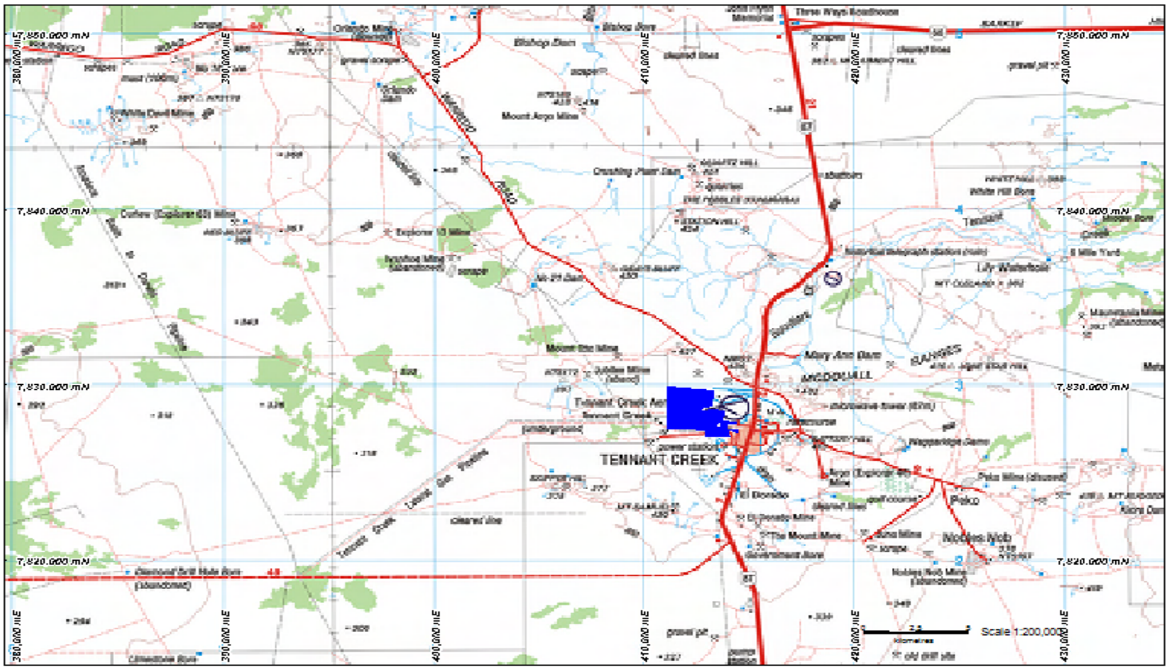

Figure 1: Tenements MA25953, MA26500 and MA26558 – Regional Location *(shown in blue)*

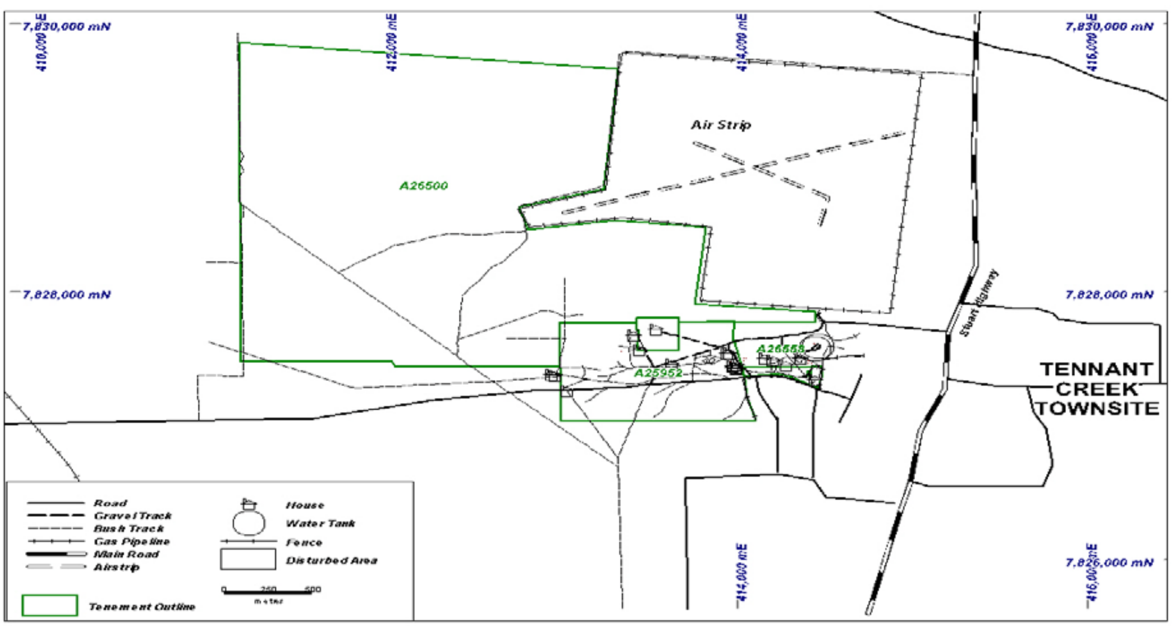

Figure 2: Westminster Project Access

3: Tenement Status and Reporting

The annual reporting period for tenements MA25952, 26500 and 26558 is from the 26th of October 2013 to 25th of October 2014 and the due date for submission is 25th of November, 2014. Details for the above tenements are outlined fully in Table 1 below. Truscott holds 100% equity in all three and manages the exploration activities.

Table 1 Westminster Project - Tenement Status 2013/2014

Tenement No	Tenement Holder	Type	Status	Grant Date	Expiry Date	Blocks Area (sq/km	Rental	Covenant	Clearance
MA25952	Truscott Mining	Application To Explore	Granted	26th Oct 2007	25th Oct 2015	1 Block 0.71		$50,000	AAPA C2007/074
MA26500	Truscott Mining	Application To Explore	Granted	9th July 2008	8th July 2016	5 Blocks 5.13	$400	$35,000	AAPA C2008/149
MA26558	Truscott Mining	Application To Explore	Granted	9th July 2008	8th July 2016	2 blocks 0.04	$160	$18,000	AAPA C2008/149
MA26902	Truscott Mining	Mining Lease Application	In Process						

A clearance survey conducted by the Aboriginal Areas Protection Authority recorded no Heritage Sites within the tenement boundaries. An authority certificate has been issued for mining exploration and mining, including the construction of infrastructure.

4. Geological Setting: Regional Geology, Warramunga Province

The Tennant Region is situated in the central part of the North Australian Craton and consists of an assemblage of mostly Archaen to Palaeporotozoic rocks that constitute a coherent crustal entity by ca. 1860 Ma (Maidment et al 2013). The Tennant Region is subdivided by the Northern Territories Geological Survey into provinces largely defined by rock outcrop type, sequence and age, these three provinces are referred to as Tomkinson, Warramunga and Davenport (Wygralak and Scrimgeour, 2009). The Warramunga Province is the host of the Tennant Creek Mineral field.

The Warramunga Province as redefined by (Donnellan 2013, Figure 3) forms the central part of the Tennant Region and is mappable from the Three Ways Roadhouse area in the north, includes centrally located Tenant Creek and ends some 50km south east of Wauchope. However the original Warramunga sedimentary basin is much more extensive than the mappable area and is thought to extend beneath the Phanererozoic Georgina Basin to the north-east and the Wiso Basin in the south-west (Donnellan 2013, Figure 3).

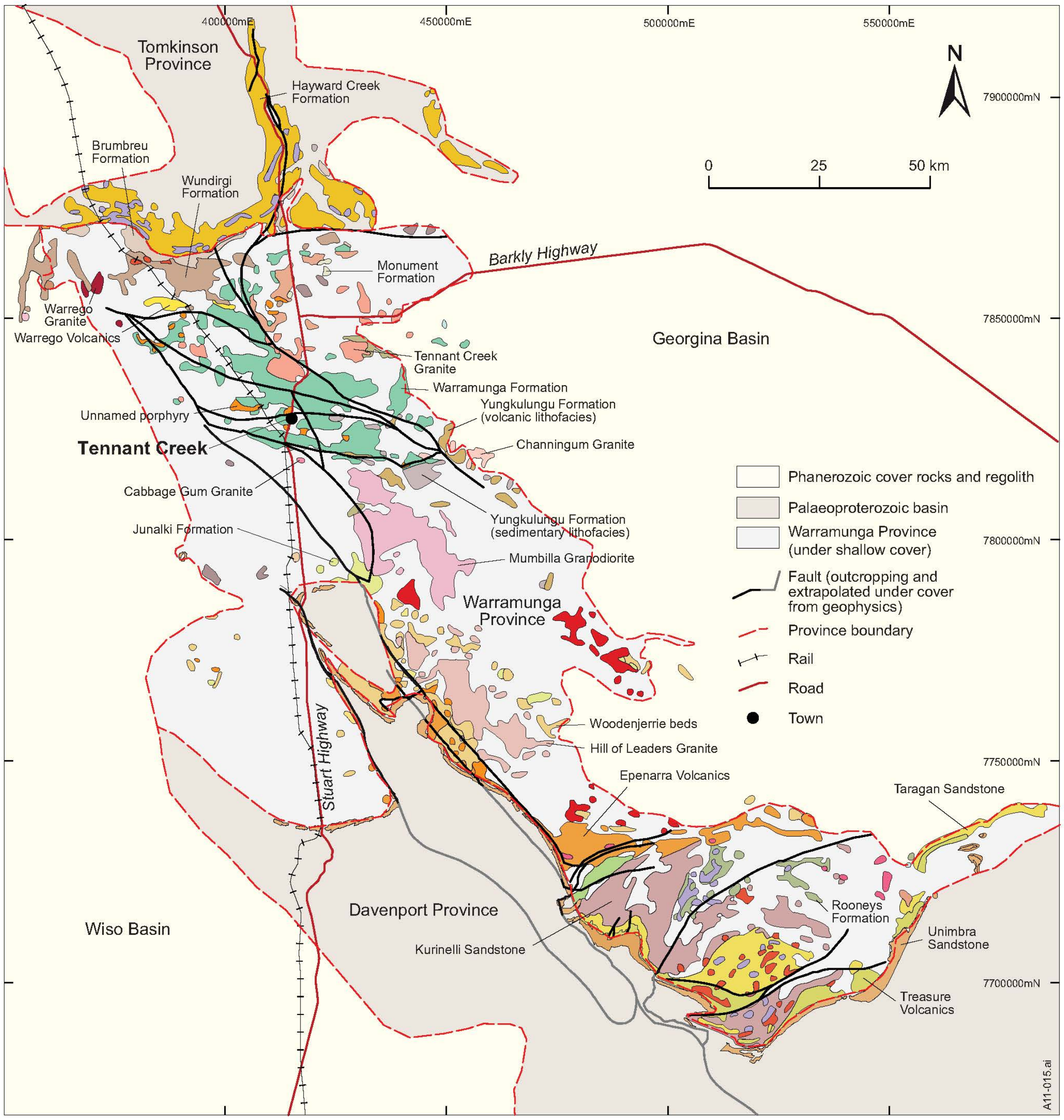

Figure 3: Locality Map of the Warramunga Province showing Georgina and Wiso basins and the tenant Creek mineral field (black lines around Tennant Creek). *After Donnellan 2013.*

The Province consists of Warramunga Formation sediments and the overlying unconformable Ooradidgee Group sediments both of which have been intruded by granites and porphyry units of the ‘Tennant Event’ (Donnellan 2013).

Tennant Creek Mineral field is located centrally within the Warramunga Province, from north-west of Tennant Creek township it extends through the town and along Gosse River Road to the south-east covering a distance of some 150km. The Mineral field is around 50km in width but many areas especially in the north and east are obscured by more recent sedimentary cover.

Traces of gold were found near Tennant Creek Township as early as 1874 but there were no significant finds until about 1932 when the association of gold with ironstone was discovered. Since that time the Tennant Creek mineral field has produced 130.2 t of Au, 345,000 t Cu, 14,000 t Bi, 220 t of Se and 56 t Ag, from over 100 small to medium sized mines. Most historical gold production took place between 1960 and 1980 with the main tonnage coming from Warrego, Juno and Nobles Nob mines where combined production totaled over 96 tons.

GEOLOGY OF THE TENNANT CREEK MINERAL FIELD

Warramunga Formation

The Warramunga Formation consists of a deformed succession of Palaeoproterozoic rocks composed of tuffaceous volcanolithic sandstones and greywacke interbedded with siltstone, terrigenous mudstone and shale. Some of these sediments form proximal and distal turbiditic fan facies indicating a fan/basin to plain depositional environment in reasonably deepwater. The above sedimentary sequence was later folded intruded by ironstone, followed by granite and porphyry units which were metamorphosed up to greenschist facies.

Dates for these sediments range in age from 1862 +/- 9 (probable tuff from Geko Mine) and 1859 +/- 13 Ma to 1861 +/- 7 Ma for greywacke from Eldorado and White Devil Mines respectively. Greywacke from White Devil and Explorer 28 prospect yielded dates of *ca* 1860 Ma, other samples from Explorer 28 and White Devil Mine dating also yielded a scattering of older dates up to 2600 Ma (Maidment et al 2013).

It is possible that there are much older depositional dates within the Warramunga sediments as the complete thickness of this unit is unknown, but it has been estimated by various authors to vary in thickness from 2.5km to 4km.

The above sediment hosts over 700 (discordant to bedding) intrusive Ironstone deposits some of which are closely related with ore and especially gold deposition (Donnellan 2013). Ironstone outcrops range in size from a 1m to 30m. Mining in the area has shown that ironstone found below outcrop surface can extend for more than 100m along strike and each unit is around 60m in width. The term ironstone is used fairly loosely here to mean either hematite or magnetite deposits or both as they frequently occur together in the same samples. Around 130 of these ironstones have been found to host gold while the majority of gold production has come from just 13 ironstone containing mines. The Ironstone deposits are thought to have derived from more iron rich mafic units located below Warramunga Formation sediments (Donnellan 2013).

Ooradidgee Group

Ooradidgee Group rocks unconformably overly Warramunga Formation sediments this relationship can be seen clearly adjacent to the Tennant Creek Township and along the Gosse River Road, the rocks within this group consist mainly of 4 discrete successions of mixed subaerial to shallow marine siliclastic rocks intercalated with felsic volcanic units. Of most concern in this paper is the lowermost sequence and its relationship to the Tenant Creek Mineral field and the timing of structural mineralisation events.

Details of regional geology, structure and mineralization are included in the 1:250,000 (SE53-14) and 1:100,000 (5758) Tennant Creek sheet notes (Donnellan et.al. 1995, & Donnellan et.al. 1999, Figure 4).

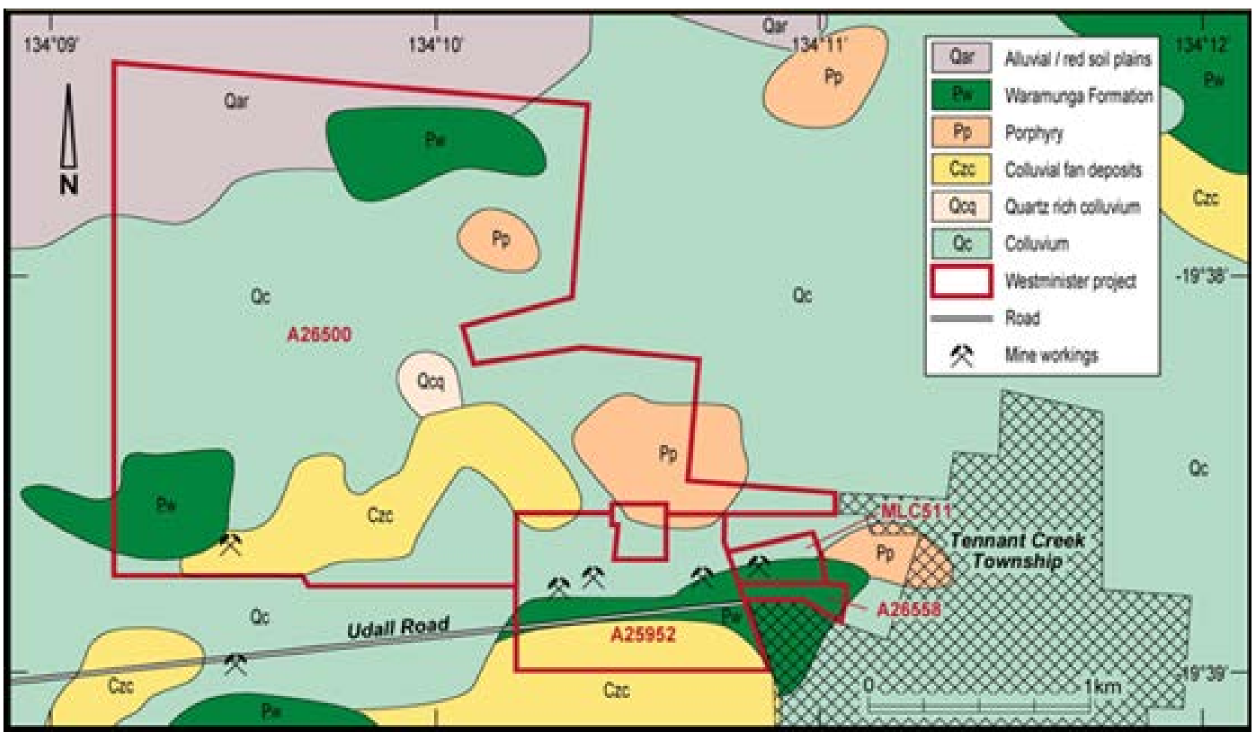

Figure 4: MA25952, MA26500 and MA26558 – NT Gov 1:250 000 Geology

5: Previous Exploration

5.1. Pre 1960 Historical Northern Mining

Westminster project area includes historical mines and prospects which were amongst the earliest discovered in the Tennant Creek Mining Field, in the 1930's.

This long mining history, together with the project's location within the Tennant Creek town site boundaries, has resulted in much small-scale mining development and widespread evidence of human activity including construction of temporary dwellings and dumping of rubbish.

Since acquiring MLC511 earlier in 2007, Truscott has commenced rehabilitation by removing some of the accumulated rubbish – these clean-up activities will be progressively continued.

Within MLC511 three "Lode Formations" were initially discovered, the Jackson, Phyllis and Nobles lodes. Prior to 1934 the Jackson lode was costeaned and a vertical shaft sunk in "massive hematite" reportedly striking "very rich" ore. Subsequent prospecting on the Phyllis and Nobles lodes resulted in a series of small workings. The overall production from these lodes is reported as 1,225.6oz of gold from 1,004t for an average grade of 44g/t Au.

The main mine on the MLC area was Wheal Doria, with a production to 1951 of 2,040 tons for 1,865 ounces (an average grade of 28.4g/t Au). Between 1953 and 1955, six diamond holes were drilled beneath these workings under an option agreement and intersected high grade gold mineralization (DDH1: 7m @40.4g/t Au from 71m below surface) resulting in the deepening of the shaft from 33m to 71m. The last of these holes was drilled in 1955 to investigate deeper mineralization and intersected only traces of gold, resulting in relinquishment of the option.

5.2 1960 to 1979 Geopeko

Geopeko drilled four diamond drill holes on the Explorer 45 target, just outside the eastern boundary of MLC511, between 1967 and 1979. Significant gold was intersected in ironstone and altered shear zone hosts, with a best intersection of 3m down hole at 10.5g/t Au in DDH5. This intercept was recorded less than 35m from Truscott's ground, and has not been followed up.

In 1970, another company drilled a percussion hole to test for oxide copper between previous holes DDH1 & 3 and intersected 4m at 2.7g/t Au in the Phyllis lode, but no significant secondary copper. In 1990, the lease owner drilled an additional hole in the same zone which intersected up to 5% secondary copper and weak gold mineralization

5.3 1992 to 1996. Perilya Mines NL

In 1992, 8 RC holes for 1,103m were drilled by Perilya Mines NL under an option agreement, on six separate lines across the lease. The traverses were at 40m spacing east-west, starting 40m east of Wheal Doria and finishing 40m west of the Jackson lode ironstone workings. Gold mineralization was intersected with the best intercepts being:

- TCRC2 - 3m @5.18g/t Au from 69m
- TCRC6 - 4m @1.59g/t Au from 16m
- TCRC8 - 3m @2.06g/t Au from 105m

Continuity of two major lode formations was interpreted, and further drilling was recommended.

Also in 1992, a very shallow vacuum drilling geochemistry program of 28 holes was completed for 253m in the southwest of the lease, mainly over interpreted westerly extensions of the Jackson lode. The position of the lode was confirmed, up to 10m wide, but no significant gold values were recorded in the near surface oxidized material.

In 1996, Perilya drilled another 5 RC holes for 723m. Three of the holes intersected significant widths of alteration and magnetite lode material including 6m at 9.97g/t Au from 162m down hole in TCRC13, the easternmost lode intercept on the lease and 50m below the previous TCRC8 intercept. Hole TCRC9 was drilled vertically in the footwall at Wheal Doria without significant results, and TCRC12 did not reach the lode/shear previously intersected in TCRC7. It should be noted that there appear to be major variations between planned/nominal hole positions and actual achieved locations from the limited reliable survey data, which would affect detailed interpretations. Three deeper RC holes with diamond tails were proposed but this work was not commenced and the option lapsed.

5.4. 2007 - 2013 Truscott Mining Exploration Activities

Truscott compiled historical records including inspection of remaining diamond core from which a detailed digital GIS database was developed.

Old tenement corner pegs were located and re-established with Star pickets and PVC piping and flagged with pink ribbon. Their locations were located using a differential GPS.

Eight (8) samples 705013-705020 were collected of materials from mullock heaps and spoils around old workings within MLC 511. Gold values to 5.72ppmAu and copper values to 1.13% Cu were recorded from sheared and altered sediments of the Warramunga Group. The multi-element data indicates that there is a zoning from gold-rich near the eastern end of the project, to Au-Cu ±Co ±Sb further to the west

A 50m x 25m auger geochemical sampling program was conducted over the Westminster Project in areas of low lying relief and thin cover. Fourteen (14) samples collected (WSS0343-345,373-374, 377-384, 389) within MLC 511. The multi-element data outlined an anomalous corridor coincident with alteration identified in field mapping which corresponded with gravity low and magnetic highs identified in the geophysical surveys. The geochemical corridor also enclosed the old workings and areas of known mineralization.

Truscott completed a 50m x 5m proton precession ground magnetometer survey, with data processing by geophysical consultants SGC. This greatly improved modern data has allowed interpretation of significant additional structural and anomaly detail, considered to be very important in ore body targeting.

Truscott engaged *Daishsat Pty Ltd* to complete a 50m x 25m gravity survey over the same grid as the recent ground magnetic survey, to provide further updated geophysical targeting for planned diamond drilling.

In 2008 eleven (11) rock chip samples (1621, 1656, 1657, 1685, 1689-1694 & 1698) were collected of sub-cropping ironstone, cherty and ferruginous materials. Results received characterized the multi-element geochemical distribution at Westminster. The best result returned was for sample 1685 of 12.1 g/t Au. The sample was collected from a pillar left behind in the Wheal Doria workings.

Geological mapping at 1:2000 scale located old working, pits, shafts, building, tenement pegs, old drill hole collars and survey markers. Most of the tenement area consists of strike ridges Warramunga sediments outcrops surrounded by Quaternary sandy soils. The sedimentary sequence shows a sub-vertical cleavage predominantly developed along 070^0. The gold occurrences are all hosted by hematite ironstone within Warramunga sediments. The ironstones vary from sheet to tabular or pipe-like in shape and are up to 70m long, 2-3m wide and 40m deep. They appear to be oblique by 20 to 30^0. The line of ironstones is surrounded by a 20m to 30m wide zone of chlorite-carbonate-talc alteration.

Initially Truscott undertook two phases of drilling. Full details and results from this drilling can be found in the Annual Reports submitted by Ivan Henderson (2009, 2010 and 2011).
Mapping during 2011 to 2012 field season showed that the surface projections of the mineralized arrays was associated with areas of breccia strong shearing with chlorite carbonate and iron oxide alteration. Many of the ironstone surface outcrops coincide with old pits, shafts and workings and elevated surface geochemical data.

A drilling program was undertaken to identify down plunge 150m ore grade gold and copper mineralization associated with a set of ironstone arrays defined from the 2011/2012 structural mapping program. There were 26 RC holes drilled, details can be found in the 2011to 2012 Annual Report.

Environmental remediation was undertaken from November 2011 to September 2012

The collars for all RC and Diamond drill holes were capped in accordance with department guidelines on completion of drilling. The PVC collar piping will be maintained to allow for holes to be deepened if necessary and leaving the possibility for down hole geophysical work to be completed on the holes.

All sample bags were removed. No rubbish has been left on the sites. The surface consists mainly of alluvium, colluvium, gravels and outcrop where top soil exists it has been stored and pushed up in piles to be kept for later use.

Several historical drill holes were plugged with concrete plugs in accordance with department guidelines. Truscott disposed of rubbish which had been dumped on the area from the town site. For Further details see MMP Report.

During the 2012 to 2013 Reporting Period Truscott chose not to proceed with drilling activities drill but concentrate on research, mapping and acquiring Joint Venture Partners. Further Truscott ascertained that the primary need for future successful precision drilling and resource estimation depended on tighter structural controls over the Westminster Tenements. Successfully achieving this goal demands extreme focus on mapping and research which is not always possible during time consuming, multiple drilling activities.

Mapping began by examining small scale structures within the Westminster Project and comparing this with previous mapping, ground based gravity surveys and drill results, a strain analysis model (Figure 5) was then produced. This model was checked and rechecked with more local and then regional structures for accuracy.

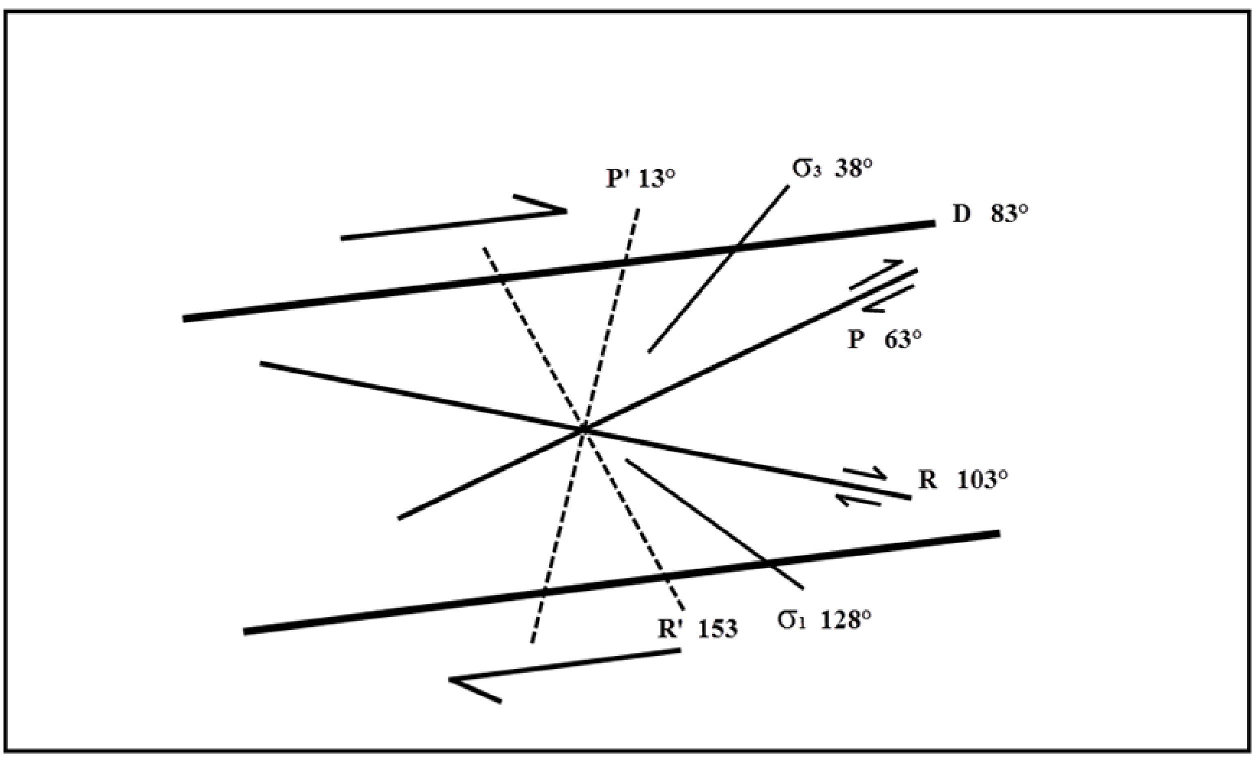

Figure 5: Strain Analysis model for Westminster and the Warramunga Sedimentary basin.

Truscott's project (Figure 6) and regional field mapping with subsequent structural/strain analysis show similar features at all scales across the Warramunga Sedimentary Basin. The Transcurrent Faulting across the basin has acted dextrally to drive the formation of a Parallel Strike Slip Zone. The resultant elements for the strike slip zones as summarised in this model are considered to act as a stress continuum and therefore apply at all scales throughout the basin (Figure 5).

The above strain Model is driven by Transcurrent Faults which are Traces for deep seated regional features (containing Ironstone deposits) these are assessed as being the drivers for Truscott's model and have the potential to act as conduits for mineralisation.

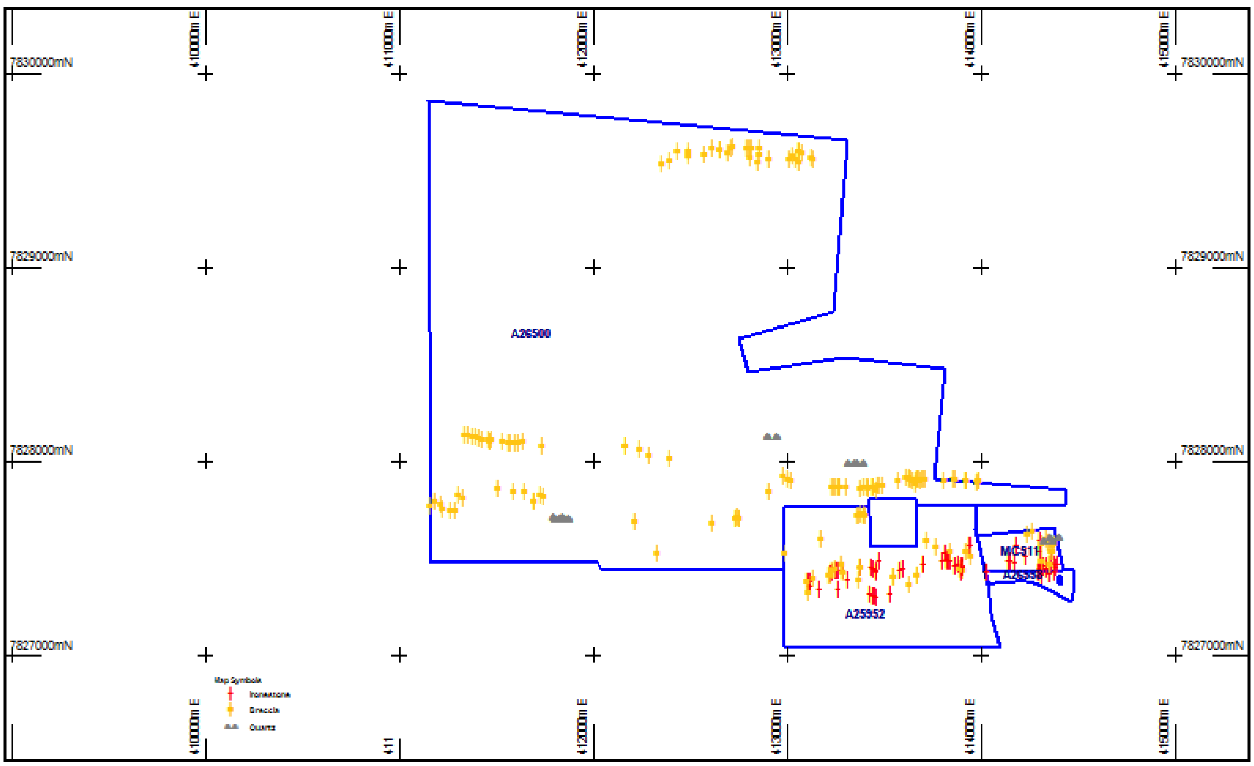

Figure 6: Westminster Field mapping of Quartz Iron and Breccia outcrops 2012 to 2013, most of the iron and breccia deposits lie along the major zones seen on Figure 4.

6. Exploration During The 26th October 2013 To 25th October 2014 Reporting Period for Tenements MA25952, MA26500 and MA26558

During the 2013 to 2014 Reporting Period Truscott chose not to proceed with drilling activities drill but continued to concentrate on research, mapping and acquiring Joint Venture Partners. Further Truscott ascertained that the primary need for future successful precision drilling and resource estimation depended on tighter structural controls over the Westminster Tenements. Successfully achieving this goal demands extreme focus on mapping and research which is not always possible during time consuming, multiple drilling activities. Truscott first examined the Regional Setting for Westminster in order to better understand the major regional transcurrent shear zones which are ore bearing and cross through Westminster Tenements.

6.1Regional Research Activities

Warramunga Sedimentary Basin Evolution and Structure

It is not usually possible to provide a unique plate tectonics model for these ancient rock types however the major issues such as be water depth can be modelled from deposition type and style. The sediments and structures within the Warramunga sedimentary basin display all the classic features of back arc, rift basin evolution (Reading 1980). During the first phase an extensional regime formed a deep water basin, this pull-apart basin would be a likely source for mafic rich volcanics from which later iron rich intrabasinal iron rich brines are thought to have derived (Donnellan 2013). The basin then begins to fill with terrigenous and tuffaceous volcanic sediments by the various processes of mass gravity transport, for example turbidites, this is referred to as phase two. When the extension phase ceases a third phase develops where transpression (often in the form of strike- slip shearing) and uplift occurs. This phase fits the observed structural harmonics across the Tennant Creek mineral where the strike slip or transcurrent regime essentially conserves lithosphere which is neither, accreted or consumed. In this third phase the basin fills with sediment and changes from a deep water environment to that of a shallow one. Continued uplift then leads to the erosion of the top of the deformed Warramunga sediments followed by the deposition of shallow water sediments (Ooradidgee Group). This process of basin evolution would have been driven by ancient plate tectonics where the mineral field east-west fold axes and subsequent transcurrent shear openings for the deposition for ironstone and mineralisation would have been driven from a largely north-south direction.

On a regional basis the Tennant Creek Mineral field was divided by Crohn who mapped the area around 1963 into two slightly different terranes roughly separated by a northwest trending shear zone marked by a prominent group of quartz reefs.

A map produced by the Northern Territories Geological Survey showed all major historical mine localities within the Tennant Creek Mineral Field. When studied closely it was clear that all mine sites were situated along similar transcurrent shear directions to those already identified through mapping, gravity surveys and drilling in the field on Westminster, Hera, Tyson, Olympus and Nobles Nob projects (Figure 7). The only major differences found between the above localities are where pre-existing syncline and anticline pre folds structures have been crossed by the transcurrent shearing.

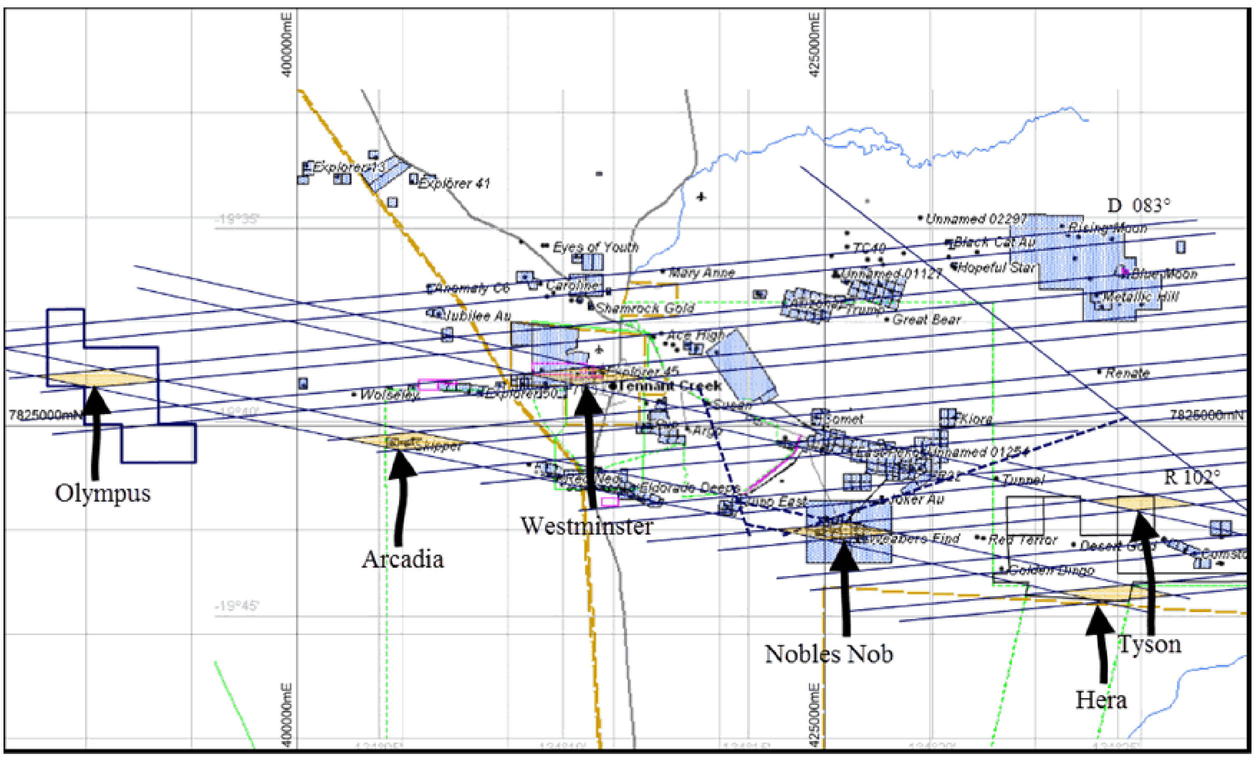

Figure 7: The Above map shows Truscott's Regional Strain Analysis Model overlying Truscott Tenements and other major gold bearing deposits located across the Warramunga sedimentary basin. *Truscott overlay of shear zones on a map Mine site produced by N.T. Geological Survey*

There are two types of shear within the Mineral Field the first is a strain analysis set (Figure 5) developed by Truscott using field measurements, ground based gravity surveys, drill results and some historical data. This first shear set is thought to have developed during a long episode of regional dextral shear (083^{o} D). These dextral shear zones have extension and compression oriented duplexes characteristic of strike-slip movement. Major orientations resulting from dextral shear (although not recognised at the time) can be seen in some historical papers and measured from maps. Examples of compressional duplexes are White Devil (Nguyen et al 1988, Huston et al 1993) Juno and Westminster No., One ore bodies which developed along compression zones oriented at 063^o (P direction). Geko (Huston et al ,1993) Warrego (Goulevitch 1975) and Nobles Nob ore body lies within an extensional duplex 103^o (R). A perfect extensional (R) boudin has been mapped by Huston et al at 1070, RL within Geko underground Mine. The other extensional and compressional duplexs have been deduced from historical maps where unrecorded strikes were measured along mapped ore bodies using north direction arrows.

The second shear set identified using the same methods as above is related to Warramunga bedding planes and has a strike between 083^o and 103^o. This second shear set has caused much confusion at some historical mine sites especially Juno and Nobles Nob Mines. Confusion arose because ore mineralisation is strung out along these shears when in close proximity to ironstone located within sheared duplexes. Consequently historical drilling and sampling continued along east west orientations away from ironstone deposits and their duplex structures which were unrecognised. Truscott research from various project areas show that these secondary shears do contain ore mineralisation but only when in a proximal relationship to ironstone located within dextral strain analysis orientations of compression (P) and extension (R). This information is the key to ore discovery in the area, high grade gold mineralisation follows ironstone and strain analysis strike not east west bedding. Further when observing the geological landscape it is found (on a mineral field wide basis) that shear surfaces and ironstone on the same alignment can be tracked across the field from the Hera project in the south to Olympus project in the north a distance of some 50km.

Regional Ironstone Structure

Historical literature contains some loosely used terminology that has passed into current literature creating some confusion in the process. The term ‘Ironstone’ was used to mean either hematite or magnetite or both, the other term was ‘hematite shale’.

Research shows that on oxygen rich environment can change magnetite to hematite this can be caused by weathering, dewatering of sediments or by any other oxygen rich fluid circulation. Under certain hydrothermal conditions of increased temperature (350^o to 570^o) and pressure (metamorphism) magnetite can be formed by the reduction of hematite (Mathews 1976). Juno Mine geologists recorded 3 magnetic (of various strengths) ore body types, dolomite, contained low grade gold, medium grade gold existed in a chloritic rock with blebs of hematite containing a minor component of magnetite and high grade ore within chloritic magnetite rich rock with minor hematite. By contrast gold taken from Nobles Nob mine is recorded as being hematite rich. It has been reported historically that the hematite at Nobles Nob Mine was a weathering product of magnetite and only found above the water table but unweathered hematite has been found in fresh rock below water table levels within the pit.

On a regional basis Ironstone (hematite/magnetite) generally strikes at 083^o (D) and dips north between 080^o and 085^o small variations on this occur locally (all project locations) where resultant P and R orientations (strain analysis Figure 5) distort local dextral shear patterns. Regional dextral openings into which ironstone was injected can be traced on Google earth images, ground based gravity surveys, field work and drilling information.

Historically the term 'hematite shale' was used very loosely to mean all types of Hematitic (red) stained shale. However structurally there are 3 different types of so called 'hematite shale' in the area, the first lies within the bedding structures and are a part of Warramunga Formation sediments. The second can often be traced in the field between ironstone outcrops and has the same structure as the ironstone (Truscott mapping and Donnellan, pers, com). The third is derived from ironstone 'bleeds' where fluid input (usually quartz) has mixed with ironstone outcrops below surface and migrated upward along bedding planes and through sediments creating small hills, examples can be seen at Westminster's Big Ben, Nobles Nob Hill and at Hera. Field samples together with some historical mines show that these 'bleeds' contain ore mineralisation especially gold.
Historical papers (Huston et al 1993, White Devil and Geko Mines) and down hole drill logs from Juno and Nobles Nob Mines plus more recent drilling (Westminster Project) indicates that massive unsheared ironstone units do not contain ore mineralisation.

R***egional Porphyry Structure***

Outcrops of porphyry are found from the Hera project in the south to Warrego in the north a distance of some 100km. A number of detailed studies and papers have been published about this rock type but the main concern of this study is to fit the intrusive porphyry into the geological landscape in terms of event timing and structure. In general the porphyry dikes have been found to contain little mineralisation of economic importance, this study and (Huston and Cozens 1993) who geochemically tested for ore and other trace elements. At deeper levels porphyries contain chlorite from greenschist mineralisation however samples close to sedimentary contacts do show minor ore mineralisation and ironstone inclusions indicating that they were injected post ironstone deposition and the major ore mineralisation events.
The porphyry seems to be associated with a hydraulic fluid event separate and post ore mineralisation, in places the porphyries display classic textures and colours, but Westminster core shows a huge variation in porphyry type within a single diamond drill core. In some places

classic porphyry minerals of quartz and feldspar have been washed out or diluted by quartz fluids. Some porphyries also contain brecciated fragments of Warramunga sediments indicating considerable fluid pressure at the time of deposition this is borne out by the fact that porphyry is found injected into fractures. Although a number of historical authors describe porphyry as a primary magmatic intrusive this seems unlikely. The porphyry must have been cooled considerably by fluids prior to intrusion into Warramunga sediments, as there is a distinct lack of contact metamorphism or chill margins in all drill core. There is also a distinct lack of contact metamorphism or chill margin descriptions in any historical papers or drill logs. Consequently Truscott refers to these units as hydraulic porphyry.

Sequence of events for the Tennant Creek Mineral Field

Understanding the sequence of events is an important part of the exploration geologist's tools when searching for mineralised structures. In the case of the Tennant Creek mineral field many outcrops of later sedimentary and porphyry events tend to overprint and disguise mineralisation structures. Dates for these events come from Donnellan and Maidment et al 2013.

1: 1860 Ma Warramunga Sediment Formation

These sediments were laid down in an environment similar to what might be described today as a back arc basin and contains sediments that would have formed in relatively deep water (Phase 2 of sedimentary basin evolution). The sediments are described as being tuffaceous in origin and have a substantial component of volcanic detritus (Donnellan 2013). Sediments show all the features of having been reworked or turbiditic and are laid down in recognisible proximal and distal fans.

Detrital zircon dating analysis of the Warramunga Formation indicates that the sediments formed a complete crustal entity by at ca.1860 Ma (Maidment et al 2013).

2: Folding (F1) this event may come from gravity folding in the sedimentary basin or have been the start of crustal thickening and or uplift producing fairly broad east west folds between 083^{o} and 103^{o}. Evidence for this comes from field observations that show ironstones that are totally discordant to bedding (Truscott and Rattenbury 1992). If folding occurred post iron formation then there would be a relationship where iron deposits were injected into undeformed sediment and would therefore lie at approximately 90^{o} to bedding but in fact the opposite is true. Ironstone does not lie at 90^{o} to horizontal bedding but is mapped as occurring at 80^{o}N in a second order fold core (anticline) at Juno Mine. At Nobles Nob Mine, Ironstone dips at 80^{o}N while bedding can be seen dipping at 70^{o}S. Westminster bedding Dips at 60^{o}N and Ironstone at 85^{o}N. Historical maps although they are without strike and dip measurements show that iron is discordant to bedding, Peko ore lies vertical on the south facing limb of an anticline (Wright 1965) with Argo Mine being vertical and located on the north facing limb of the same syncline. In contrast Lone Star Mine ore deposit is pictured as lying parallel to bedding (Rattenbury 1992)

3: Some sediment dewatering, seen in core, flame structures at Juno and Westminster Projects.

4: 1850 Ma Ironstone deposition Start of Tennant Event (D1)(Donnellan 2013)
Dextral shearing creates openings (start, Phase 3, of basin evolution) along 083^{o} (D) allowing for the injection of ironstone fluids into narrow 083^{o} shear openings. It is possible that this iron injection event was caused by initiation of rising magma from deeper in the crust. Fluid inclusion studies by Khin Zaw et al 1994, demonstrate that Iron formed from relatively low temperature (200^{o}C to 250^{o}C) from moderately saline fluids. At this time bedding and cross bedding shears also developed along an 083^{o} orientation stringing some iron along the shear planes.

- ***Quiescent Period**, Ironstone consolidates*
- ***Shearing and mobilisation** of P and R resultant sub-shear directions (minimal offset) Woodcock and Fischer 1986),* iron is brecciated (further development of Phase 3). Shearing also continues along bedding planes which become warped and crosscut within major transcurrent shear duplexes
- ***Mineralisation**, ore, deposition and greenschist metamorphism, Temperatures of (250^{o}C to 600^{o}C) in high saline fluids (Khin Zaw et al 1994),* precipitated by uplift.
- ***ca. 1850-1845 Ma, Hydraulic Porphyry** injection and Granite intrusion (Maidment et al 2013),* uplift continues with negligible ore mineralisation, crosscuts ironstone, mineralisation and F1, but does contain greenschist minerals at depth.
- *Lamprophyre intrusion,* Into (in some cases into older porphyry channels, Westminster core). Greenschist metamorphism ceases here due to further uplift (deeper samples have some chlorite mineralisation but surface samples none).

***5: Erosion** of upper Warramunga sediments,* the water is now shallow and erosion possible, Unconformity seen on Westminster and Hera Projects.
***6: 1842 Ma Ooradidgee Group**,* shallow water sedimentation begins.
7: Erosion, brecciation of a lower Ooradidgee Unit seen at Tyson and Nobles Nob Projects
***8: Ooradidgee** sedimentation continues*
9: ca 1711 Ma, Lamprophyre intrusion, Into (in some cases into older porphyry channels, Westminster core). This may be the first or second episode of lamprophyre intrusion.
10: Pre 1710 Continuing Tennant Event (F2) *Folding of Ooradidgee sediments and further deformation (second order folds) of the Warramunga Formation.*

Table 2: Summary of Events, the events listed below derive from field observations made within the Project areas and Dates from (Maidment et al 2013)

Dates	Warramunga Formation	Structural Event Description
1860 Ma	End deep water sedimentation	Crustal Thinning
	De watering	minor mineralisation/bedding planes
	F1 Folding	East west orientation
1850	D1 Ironstone Emplacement	083^{o} D1 Tennant Event Dextral shear
	Ironstone Consolidation	Quiescent period
	Uplift	Dextral shear R and P directions activated
	Uplift	Ore and Greenschist mineralisation
1850-1845	Uplift	Granite and Porphyry emplacement
		Erosion shallow water
1842 Ma	Ooradidgee Group	Shallow water sediment deposition
	D3?	Layer of Brecciated sediments
		minor ore mineralisation
Pre 1710	F2 Continuing Tennant Event	Sediments and intrusives folded

The regional structural model was then tested and substantiated by describing a number of observations at various scales in the hitherto under explored project areas of Tyson and Hera. The data sets used included were the same as those used on the other the other three projects and included all available drill results, ground based gravity surveys, extensive field mapping and Google earth images. There were now five projects which confirmed Truscott's regional strain analysis that were structurally similar at all element levels.

The application of Truscott's model, now provided the capability to explain most of the existing concentrations of mineralisation (ore bodies), and to be utilised as a predictive tool for targeting other major mineralization zones within the Westminster Tenements.

Field Work

Recent extensive field mapping has further refined the accuracy of Truscott's structural model with its prime ore targets locations. The objectives of this mapping exercise were to map details along Westminster's Primary and secondary dextral 083^{o} shears. Although Tennant Creek infrastructure and historical mining has destroyed shear structure in places the main shear can still be traced and mapped over a distance of 6km. This detailed mapping revealed the boundaries of Westminster's confirmed (Number One) ore body and using drill results plus the new knowledge gained from mapping and surface mineralization further define the extent of proposed ore body two in the extension zone.

Field mapping showed that the main ore rich zone or central no 1 shear is some 70m wide (Figures 8 and 9) and lies within a D (083^{o}) transcurrent shear bounded to the south by copper bleeds and vertical hematite shale deposits.

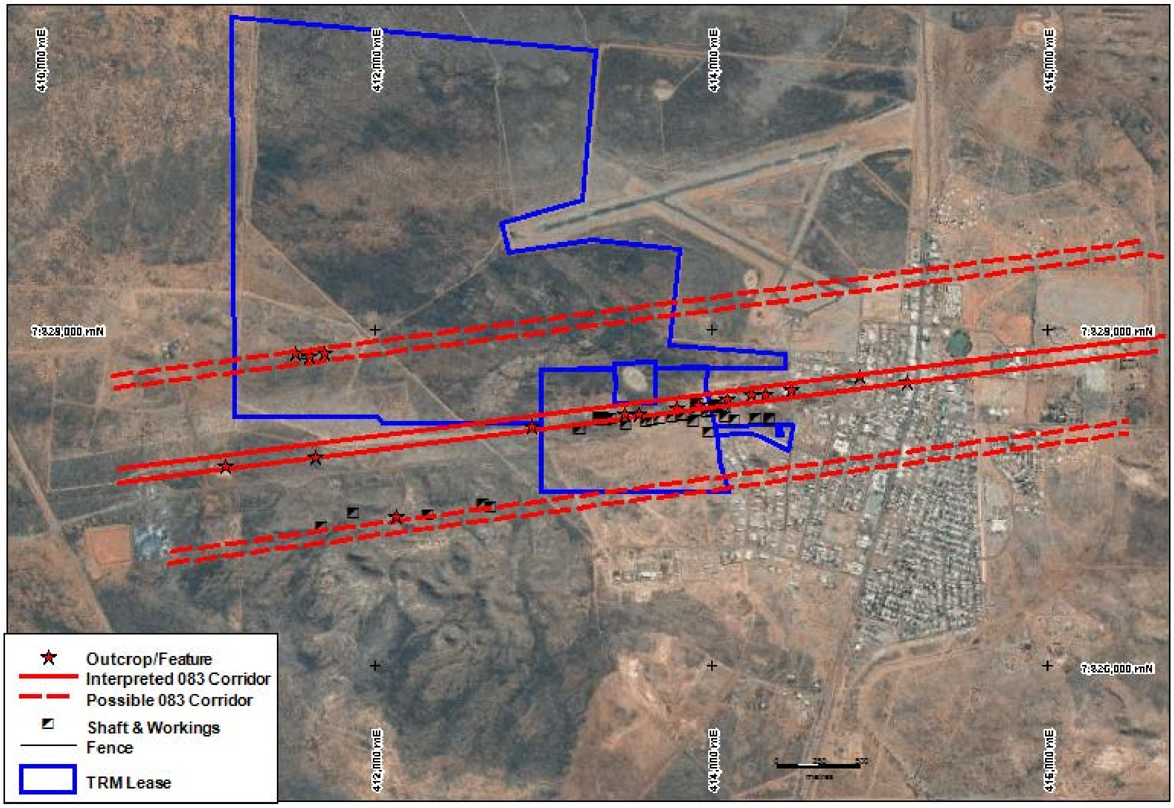

Figure 8: Google Earth image with newly mapped 083° shear zones Westminster ore body 1 is located within the central shear.

Within this transcurrent zone Warramunga bedding is heavily distorted and can strike at 063° in the compression area (P, Number one ore body) and 103° in the extension area (R) proposed ore body two similar in structure to Nobles Nob) as described in the section on regional structure.

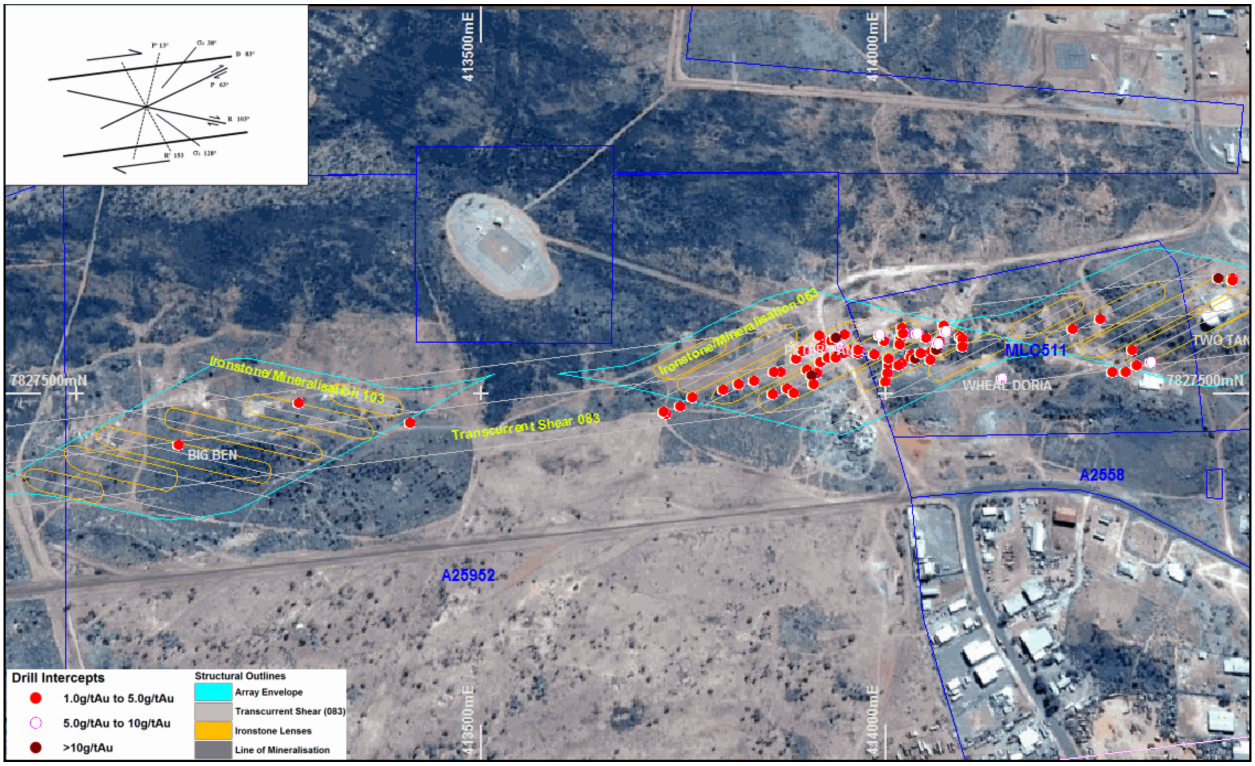

Figure 9: Recently mapped compression (P) and Extension (R) Au bearing structures crossing the Westminster Project Tenements.

When the structures seen above were applied to the whole Tennant Creek Mineral Field (Figure 9), Truscott was able to further confirm the models accuracy by visiting the predicted localities at both Hera and Tyson Projects, locate and map the predicted structures.

8.Discussion

The exploration model being developed to target accumulations of high grade mineralisation draws upon the following three interrelated concepts;

Ironstone pods (Figures 10 and 11) are located in zones of dilation and compression developed during an early phase of the Tennant Event (Donnellan 2013) of the regional deformation of the Tennant Creek Mineral Field. Previous drilling has defined a target matrix within an east west oriented series of brecciated ironstone arrays each zone is considered to constitute a stacked series of mineralised ironstone ore pods. These ironstone pods containing mineralisation are interpreted to be the down plunge extension of the mineralisation of the historical Wheal Doria workings (Figure 9). A lower zone was identified that lies below the workings and is associated with strong carbonate alteration. Drill hole drift restricted the effectiveness of the drilling. The

2013 to 2014 drilling program is expected to define further ore mineralisation below the carbonate alteration zone.

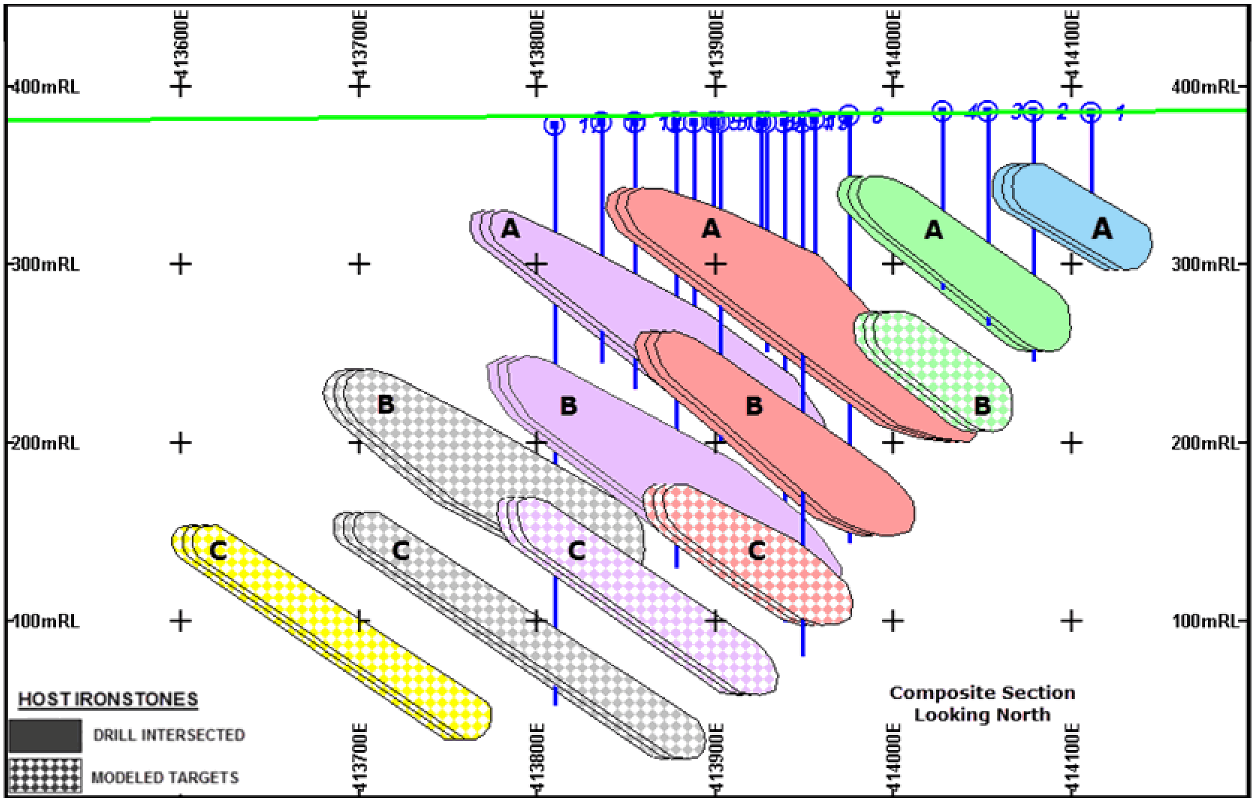

Figure 10: Ironestone mineralised pods showing drilled sections and planned drilling

Field mapping indicates that the east-west alignment of the targeted ore zone along the length of the Westminster Project undergoes a major flexure (Figure 9). This flexure is an integral part of the setting of the zones of dilation that hosts the mineralisation. It is interpreted that the ore zones differ in size and mineral content as a consequence of their positions relative to flexure ie; compression or extension. It is expected that future drill results are likely to reflect these differences.

9. Future Work

The character of the poly-metallic mineralisation is such that ongoing research into methods for constraining and modelling the system for mineral resource estimation purposes is ongoing. Further drilling and refinement of the structural analysis is now proposed to support this.

Future drilling to support resource estimation work and, to target deeper high grade mineralisation is being planned (Figures 10 and 11). The first 4,000 meters of the next drilling program for the Westminster Project are listed in table 2. The program is designed to provide additional structural information and to increase the existing resource base.

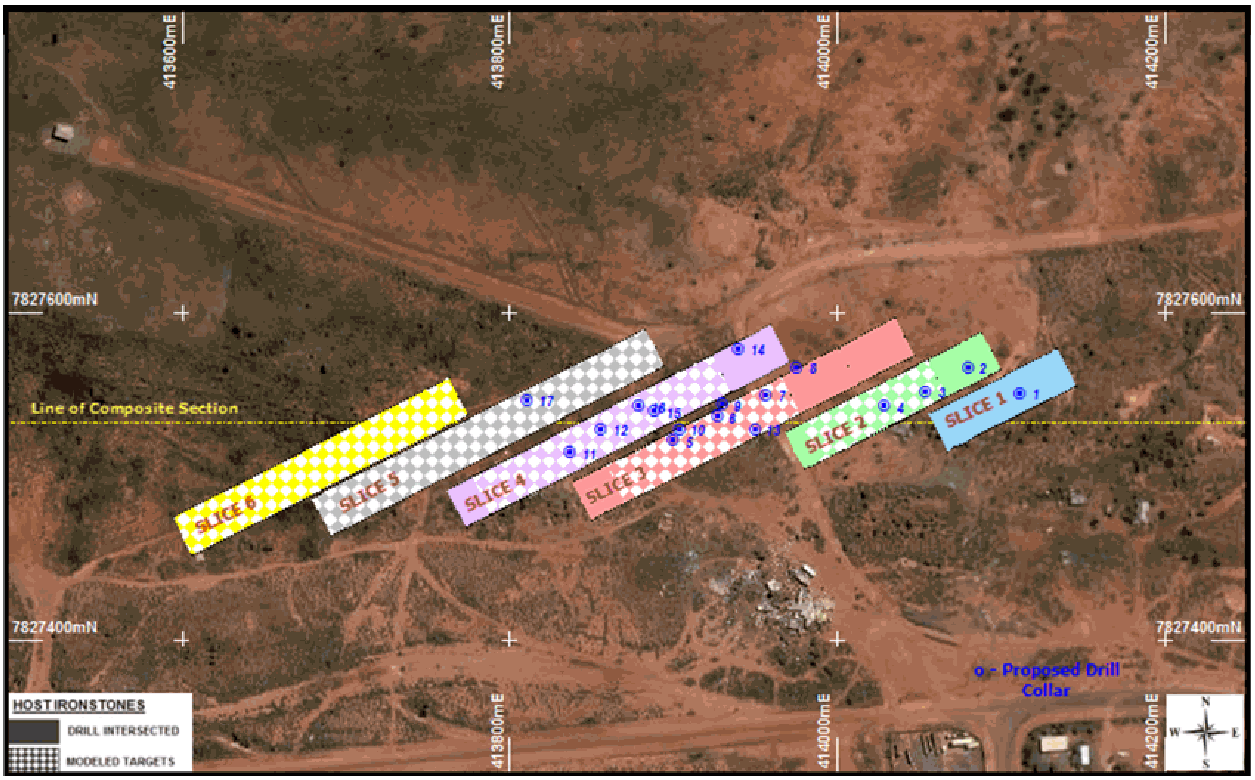

Figure 11: Mineralised Ironstone pods within the 70m wide central shear showing both areas and future drilling targets.

The resource estimation drilling will also provide additional data to assess the potential for exploitation of the upper part of the resource as either an underground or open pit mining operation.

Further wider spaced drilling will also be required to delineate the extent of mineralisation at depth and across both Extension and Compression zones which have a combined strike extent of 1.4 kilometres. Consideration of the total Westminster system and the current structural model suggests that only a minor percentage (less than ten) of the potential target zones may have been drill tested to date.

Table 3: Proposed Drill Program 2013/2014

Target Coordinates		Collar adjusted/existing				Target	Hole	Existing	Drill
GDA East	GDA North	GDA East	GDA North	Azimuth	Dip	Depth	Metres	Metres	Metres
414110	7827555	**414111**	**7827557**	0	-90	50	80		**80**
414078	7827563	**414079**	**7827565**	0	-90	105	140		**140**
414052	7827547	**414053**	**7827549**	0	-90	85	130		**130**
414027	7827546	**414028**	**7827548**	0	-90	65	100		**100**
413898	7827520	**413899**	**7827521**	0	-90	50	85		**85**
413925	7827536	**413926**	**7827538**	0	-90	75	110		**110**
413955	7827547	**413956**	**7827549**	0	-90	90	125		**125**
413971	7827559	**413974**	**7827565**	0	-90	170	260		**260**
413929	7827543	**413929**	**7827543**	0	-90	165	290	161	**129**
413903	7827528	**413903**	**7827528**	0	-90	140	270	89	**181**
413835	7827511	**413836**	**7827514**	0	-90	80	125		**125**
413853	7827525	**413855**	**7827528**	0	-90	100	145		**145**
413940	7827565	**413940**	**7827565**	0	-90	220	285	211	**74**
413930	7827563	**413930**	**7827563**	0	-90	215	280	210	**70**
413888	7827539	**413888**	**7827539**	0	-90	230	270	214	**56**
413875	7827534	**413878**	**7827540**	0	-90	175	240		**240**
413803	7827533	**413808**	**7827542**	0	-90	240	290		**290**
414260	7827545	**414264**	**7827542**	0	-90	135	165	119	**46**
414295	7827570	**414300**	**7827579**	0	-90	160	260		**260**
414250	7827580	**414256**	**7827592**	0	-90	255	300		**300**
414233	7827570	**414239**	**7827582**	0	-90	250	295		**295**
413380	7827455	**413380**	**7827456**	0	-90	60	80		**80**
413330	7827430	**413331**	**7827433**	0	-90	120	140		**140**
413164	7827430	**413168**	**7827437**	0	-90	220	270		**270**
413120	7827400	**413125**	**7827409**	0	-90	250	300		**300**
							Total		**4031**

Table 2: Proposed drilling localities for the Westminster Project 2013/2014.

10. Expenditure

The Expenditure reports and the associated projected covenant expenditure estimates for MA25952, MA26500 and MA26558 have been submitted to the Department for this reporting year, as the tenements all have separate reporting dates.

10. References

Crohn P. W. 1965. Tennant Creek Gold and Copper Field. *In McAndrew J. Editor Eighth Commonwealth mining and Metallurgical congress Australia and New Zealand, Melbourne 8, 176-182*

Donnellan N, 2013. Warramunga Province: in Ahmad M and Munson TJ (*compilers*). Geology and Mineral Resources of the Northern Territory. *Northern Territory Geological Survey, Special Publication 5, 9:1-9:61.*

Edwards G.C, Booth S. A, and Cozens G.J. 1990. White Devil Gold Deposit. *in Geology of the mineral deposits of Australia and Papua New Guinea, Edited by F.E. Hughes. Australian Institute of Mining and Metallurgy, Melbourne 849-855*

Goulevitch J. 1975 Warrego Copper-Gold Orebody: *in Knight C.L. (editor) Economic geology of Australia and New Guinea, Australian Institute of Mining and Metallurgy, Monograph 5,430-436.*

Hatcher R. D. 1990. Structural Geology: Principals Concepts and Problems. *Merrill Publishing Company*

Huston David L, Bolger Chris and Cozens Greg. 1993. A Comparison of Mineral Deposits at the Geko and White Devil Deposits, Implications for Ore Genesis in the Tennant Creek District, Northern Territory, Australia. *Economic Geology Vol 88 pp 1108-1225.*

Huston D and Cozens G.J. 1994. The Geochemistry and Alteration of the White Devil Porphyry: Implications to Intrusion Timing. *Mineralium Deposita 29, 275-287*

Khin Zaw, Huston D.L, Large R.R, Mernagh T and Hoffmann C.F. 1994. Microthermometry and geochemistry of fluid inclusions from the Tennant Creek gold-copper deposits: implications for ore deposition and exploration.*Mineralium Deposita 29, 288-300.*

Kletetschka Gunther, Wasilwski, Peter J, Taylor Patrick T. 2000. Hematite vs. Magnetite as the signature for planetary magnetic anomalies? *Physics of the earth and Planetry Interiors 119 259-267*

Large R. R. 1975. Zoneation of Hydrothermal Minerals at the Juno Mine, Tennant Creek Goldfield Central Australia. *Economic Geoloy, Vol 70, 1387-1413.*

Maidment DW, Huston D, Donnellan N. and Lambeck A. 2013. Constraints on the Timing of the Tennant Event and associated Au-Cu-Bi mineralisation in the Tennant Region, Northern Territory. *Northern erritories Geological Survey, Department of Mines and Energy.(Unpublished).*

Matthews Alan, 1976. Magnetite formation by the reduction of hematite with iron under hydrothermal conditions. *American Mineralogist Volume 61927-932.*

McPhie J, 1993. The Tennant Creek porphyry revisited: A synsedimentary sill with peperite margins, Early Proterozoic, Northern Territory. *Australian Journal of Earth Sciences 40, 545-558.*

Nguyen P.T, Booth S.A, Both R.A, and James P.R. !988. White Devil Gold Deposit, Tennant Creek,Northern Territory, Australia. *Keays R.R, Ramsay W,R,H, and Groves D.I (Editors) The Geology of Gold Deposits: "The Perspective in 1988."Economic Geology Monograph 6,180-192*

Rattenbury M.S. 1992. Stratigraphic and structural controls on ironstone mineralisation in the Tennant Creek goldfield, Northern Territory, Australia. *Australian Journal of Earth Sciences 39, 591-602*

Rattenbury M.S. 1994. A linked fold-thrust model for the deformation of the tenant Creek goldfield, northern Australia. *Mineralium Deposita 29, 301-308*

Reading Harold G. 1980. Characteristics and recognition of strike slip systems. *From*, *Sedimentation in Oblique-slip mobile zones. Eds Balance P.F.Spec. Publ. Ass. Sediment 4. 7-26*

Smith P.N. and Hanson J. 2013. Structural Controls over Gold Mineralisation – Tennant Creek Mineral Field. *Truscott Mining (Unpublished)*

Stolz A.J, Large R.R, Robertson P. and Wedekind R. 1994. Criteria for distinguishing between gold bearing and barren ironstones at Tennant Creek, Northern Territory, Australia. *Journal of Geochemical Exploration 51, 247-264*

Twiss Robert J. Moores and Eldridge M. 1992. Structural Geology. *W.H. Freeman and Company New York.*

Woodcock Nigel H. and Fischer Mike. 1986 Strike-slip Duplexes. *Journal of Structural Geology Vol 8 No 7, 725-735*

Wright K. 1965. Copper Ore Deposits of the Peko Mine. *In McAndrew J. Editor Eighth Commonwealth mining and Metallurgical congress Australia and New Zealand, Melbourne 8, 183-185*

Wygralak AS, and Scrimgeour IR, 2009. Gold Deposits of the Northern Territory. *Northern Territory Geological Survey. Report II Second Edition.*

Appendix 1

Copyright Statement