GROUNDRUSH PROJECT

ANNUAL REPORT

to the Department of Primary Industry and Resources

for the period 14/09/16 to 13/09/17 for

ML22934

Date: October 2016

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List of assays: Au, Ag, Al, As, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Fe, Ga, Ge, Hf, In, K, La, Li, Mg, Mn, Mo, Na, Nb, Ni, P, Pb, Rb, Re, S, Sb, Sc, Se, Sn, Sr, Ta, Te, Th, Ti, Tl, U, V, W, Y, Zn and Zr

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SUMMARY

This report describes exploration activities primarily for gold undertaken by Northern Star (Tanami) Pty Ltd over ML22934 as part of the Groundrush Project between the 14 September 2016 and 13 September 2017. The centre of the Project area is located approximately 600km northwest of Alice Springs along the Tanami Road and lies 40km northeast of the Tanami Mill which is currently under care and maintenance.

The Groundrush tenement forms part of a larger Joint Venture agreement between Tanami Gold (NT) Pty Ltd and newly incumbent joint venture partner and manager Northern Star (Tanami) Pty Ltd, a wholly owned subsidiary of Northern Star Resources Limited.

Work completed over ML22934 by NST during the reporting period comprised:

- collection and geological logging of 54 mapping points, including legacy drill chip samples, with geochemical analysis of four from the Groundrush area;
- magnetic-radiometric survey of the Groundrush region as a part of a larger regional airborne survey. Preliminary geological interpretation;
- submission of an MMP variation to the DPIR requesting approval for Air Core drilling over adjacent prospects; and
- ongoing mining feasibility studies.

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1. INTRODUCTION

This report describes exploration activities primarily for gold undertaken by Northern Star (Tanami) Pty Ltd (**NST**) over ML22934 as part of the Groundrush Project between 14 September 2016 and 13 September 2017. The centre of the Project area is located approximately 600km northwest of Alice Springs along the Tanami Road and 40km northeast of the Tanami Mill which is currently under care and maintenance.

Main access to the tenement is via the Tanami Road to the Tanami Mine and Mill and then northeast by sealed haul road to the Groundrush pit (Figure 1). Groundrush was mined over a three year period from 2001 to 2004. More than 600,000 ounces of gold were recovered with an average grade of approximately 5,000 ounces per vertical metre and a recovery grade of 4.3g/t Au. Groundrush was mined by Newmont which processed ore at the Central Tanami Project (**CTP**) plant until its closure in 2005. In 2010, Tanami Gold (NT) Pty Ltd (**TNT**) acquired the CTP as part of a divestment package from Newmont. TNT completed several stages of drilling at Groundrush for a total of 141 diamond holes (~45,000m).

Through the Aboriginal Land Rights Act (*1976*) the CTP sits on land that is owned by the Warlpiri People for which the Central Land Council (**CLC**) acts as a representative body corporate. All personnel and vehicles entering Aboriginal Land are recorded through the CLC, with the CLC also forming a major part of the approvals process for exploration and mining activities/proposals.

The topography of the Groundrush area is relatively flat with sparse low lying escarpments/breakaways within several kilometres of the deposit. Overlying transported sand covers a large extent of the area, ranging in thickness from 2m to more than 30m in places. Vegetation consists predominantly of low lying shrub, namely Hakea, Acacia and Grevillea species overlying soft spinifex and hummocky grass. No farming or agricultural activities are carried out in close proximity to the CTP.

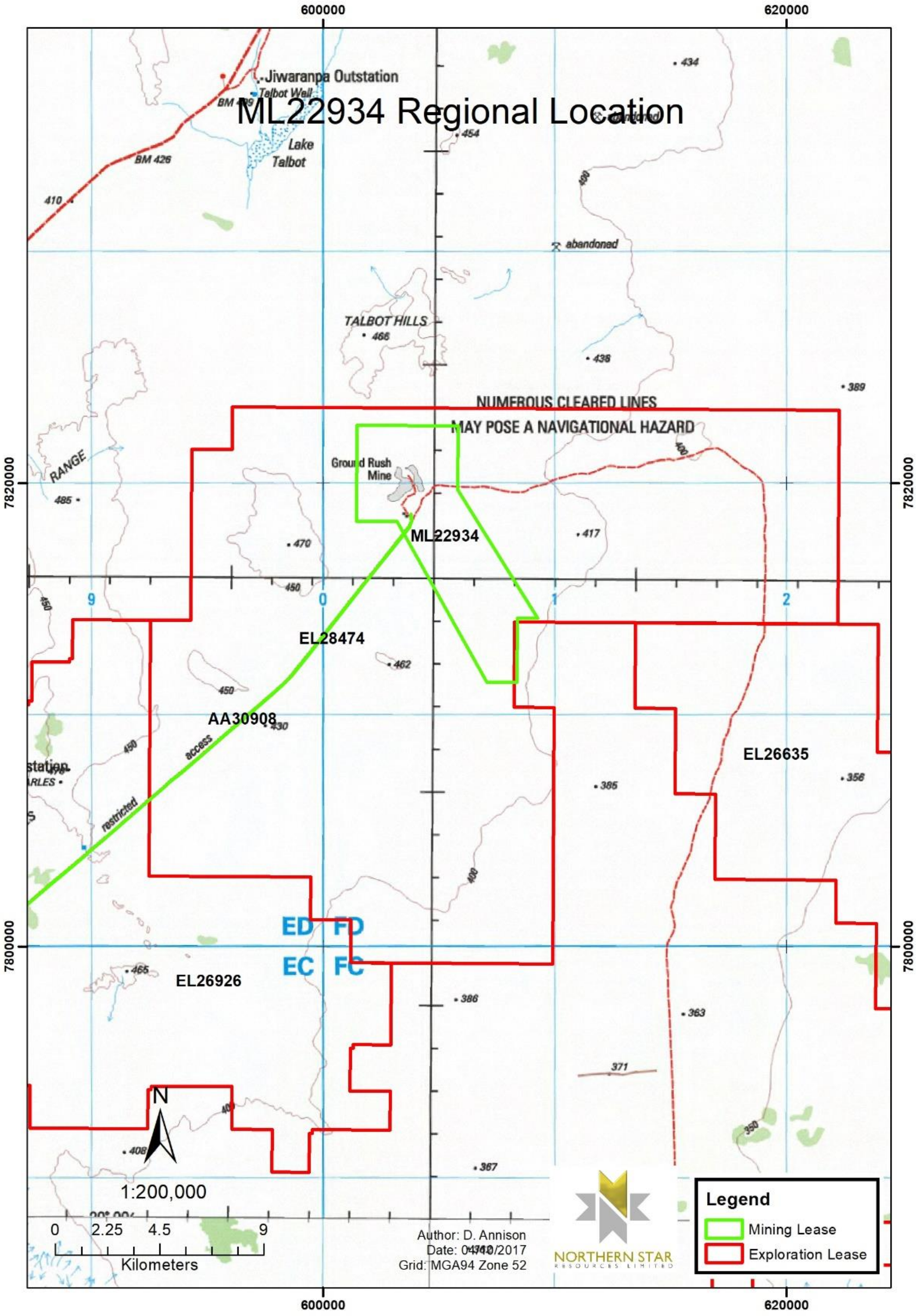


Figure 1 Regional Tenement Location

2. TENURE

On 30 March 2010 the tenement comprising the Groundrush Project was acquired by Tanami (NT) Pty Ltd, a wholly owned subsidiary of Tanami Gold NL, from Otter Gold NL. Otter is a wholly owned subsidiary of Newmont Asia Pacific.

In February 2015, a Heads of Agreement was executed between TNT and NST whereby NST agreed to progressively acquire a 60% joint venture interest in the tenements, of which the Groundrush tenement ML22934 is a part, by sole funding all expenditure required to bring the greater Tanami Project back into commercial production which shall be achieved once the Central Tanami Project processing plant has been refurbished and is operated for a 30 day period or has produced 5,000oz of gold. The CTP processing plant is located ~40km to the southwest of the Groundrush Mine along a designated haul road with Access Authority AA30908.

As part of the consideration of the Heads of Agreement, NST acquired a 25% registerable interest in the tenement.

Table 1 Tenement Details

Tenement	Holder	Current Area (ha)	Grant Date	Expiry Date
ML22934	TNT 75%; NST 25%	3950	14/09/2001	13/09/2026

3. GEOLOGY

3.1 REGIONAL GEOLOGY

The Tanami region is centred 600 km northwest of Alice Springs and straddles the Northern Territory-Western Australia border. Its relationship to the surrounding tectonic units is poorly known. The contacts with the Arunta Province to the south and the Tennant Inlier to the east are not exposed but appear to be major shear zones in the magnetic data (Hendrickx et al, 2000). The geology of the Tanami region (Figure 2) comprises a sequence of folded Palaeoproterozoic metasediments and minor meta-

mafic volcanic and intrusive rocks unconformably overlying Achaean basement. Much of this is hidden beneath thin unconsolidated cover.
The known Archaean is very restricted. Limited dating (SHRIMP zircon U-Pb) of the supracrustal rocks is consistent with an Archaean protolith (ca. 2,500 Ma), with high grade metamorphic activity ascribed to the Barramundi event at 1,880 Ma (Hendrickx et al, 2000).

The basal part of the Palaeoproterozic stratigraphy is the Tanami Group, comprising the lower Dead Bullock Formation and the upper Killi Killi Formation. The Tanami Group is inferred to have been deposited in a transgressive passive marginal environment following the cessation of major extension and faulting associated with rifting (Hendrickx et al, 2000). The locally extensive mafic volcanic bearing Stubbins Formation and Mount Charles Formation are laterally correlated with the Dead Bullock Formation (Bagas et al, 2008).

Folding and low - to middle-greenschist facies regional metamorphism affect the Tanami Group at approximately 1,840 Ma. The metamorphic grade tends to increase from the northwest to the south-east and adjacent to the local granites (see below) that accompanied this event, which has been denoted as the Tanami Orogenic Event (Vandenberg et al, 2001).

Unconformably overlying the Tanami Group is the complex Ware Group. This was deposited over the Tanami Group in a series of small extensional basins. The Ware Group includes the Mount Winnecke Formation, the Nanny Goat Volcanics and the Wilson Formation (Crispe et al, 2002).

Granitic lithologies constitute approximately 60% of the geology of the Tanami Region, and predominantly comprise 'I-type' biotite ± hornblende monzogranites and granodiorites (Dean, 2001). The granite suites are believed to represent over-lapping igneous events between approximately 1,840 and 1,790 Ma with the Winnecke Suite (1,820-1,830 Ma), the Coomarie Supersuite (1,810-1,820 Ma) and the Frederick Suite (1,790-1,810 Ma) defined by Dean (2001).

The age(s) of gold mineralisation in the Tanami region are poorly constrained, inferred based upon geological relationships that can be confusing and sometimes contradictory. Overall, most geochronological data point to an age of circa 1,800 Ma for late (D5) gold in the Tanami region. The age of the apparently earlier gold event (D1 or D3 at The Granites) is not constrained (Huston et al, 2006).

The post-gold mineralisation Birrindudu Group has an interpreted Neoproterozoic age and unconformably overlies the other components of the Tanami region. The exact age is unconstrained but must be less than 1,800 Ma owing to field relationships with the granites. The Birrindudu Group is interpreted as representing shallow marine platform sediments. Three constituents comprise the Birrindudu Group; Gardiner Sandstone, Talbot Well Sandstone and Coomarie Sandstone (Blake et al, 1979). Local exposures of the Cambrian Antrim Plateau Basalt also occur through the Tanami Region (Hodgson, 1975).

A desert terrain that comprises transported and residual colluvial cover sediments and aeolian sand blanket a large portion of the Inlier, with an estimated outcrop exposure of less than 10% of the early Proterozoic lithological units. Gold mineralisation within the Tanami is dominantly hosted by the Tanami Group and Mt Charles Formation, though mineralisation has been recorded in all Proterozoic units older than the Birrindudu Group cover sequences. Owing to their more resistant nature, only the cherts and iron formations and associated interbedded graphitic schists tend to outcrop above the sand plain.

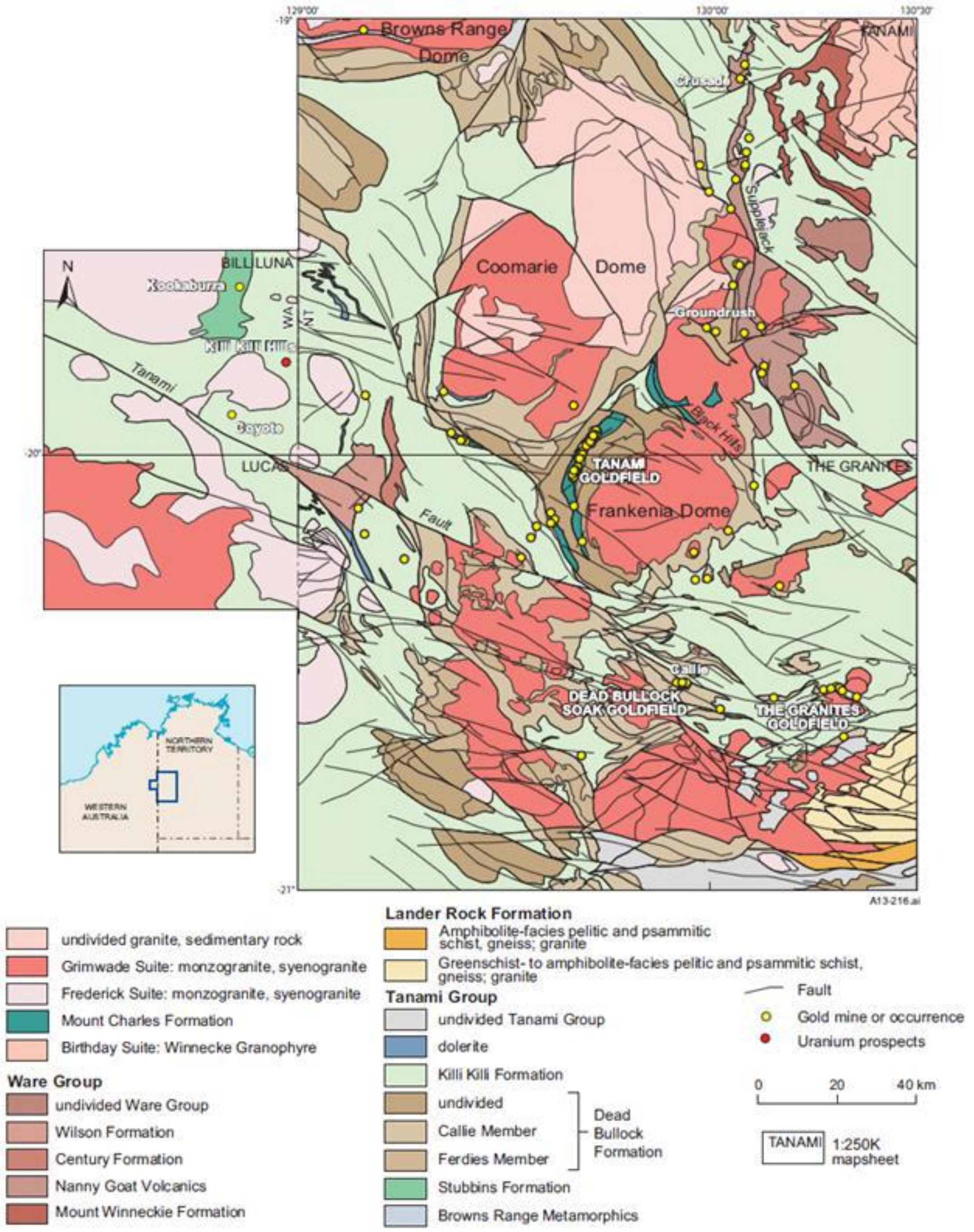


Figure 2 Interpreted Regional Geology and Gold Deposits of the Tanami Region

3.2 LOCAL GEOLOGY

Palaeoproterozoic rocks around Groundrush and in the Tanami region in general occur as small widely separated, discontinuous, deeply weathered or silicified outcrops among the sand plains that cover the bulk of the area. The geology and stratigraphy of the region are summarised in Figure 3 modified after Hendrickx *et al*., 2000.

Gold mineralisation at Groundrush is interpreted to occur within the Killi Killi Formation of the Tanami Group. The Killi Killi Formation is generally composed of thick monotonous turbiditic siltstone and sandstone (commonly arkose and greywacke) sequence up to 4 km thick. It conformably overlies the Dead Bullock Formation, composed of variably carbonaceous siltstone with minor chert and iron rich horizons (BIF), which hosts the orebodies at Dead Bullock Soak and The Granites. Dolerite sills up to +200 m thick intrude the Tanami Group.

The Tanami Event (Vandenberg *et al*, 2001), a period of tectonism dated at around 1,845-1,840 Ma, with multiple deformation and metamorphism marked the end of deposition of the Tanami Group. Pargee Sandstone molasse-type sediments are contemporaneous with this event. The Tanami Event was followed by a period of crustal extension with deposition of Mount Charles Formation basalts and turbiditic volcaniclastics followed by widespread granite intrusion and felsic volcanism (Mount Winnecke Formation). A period of peneplanation followed prior to deposition of Birrindudu Group siliciclastic sediments including the Gardiner Sandstone.

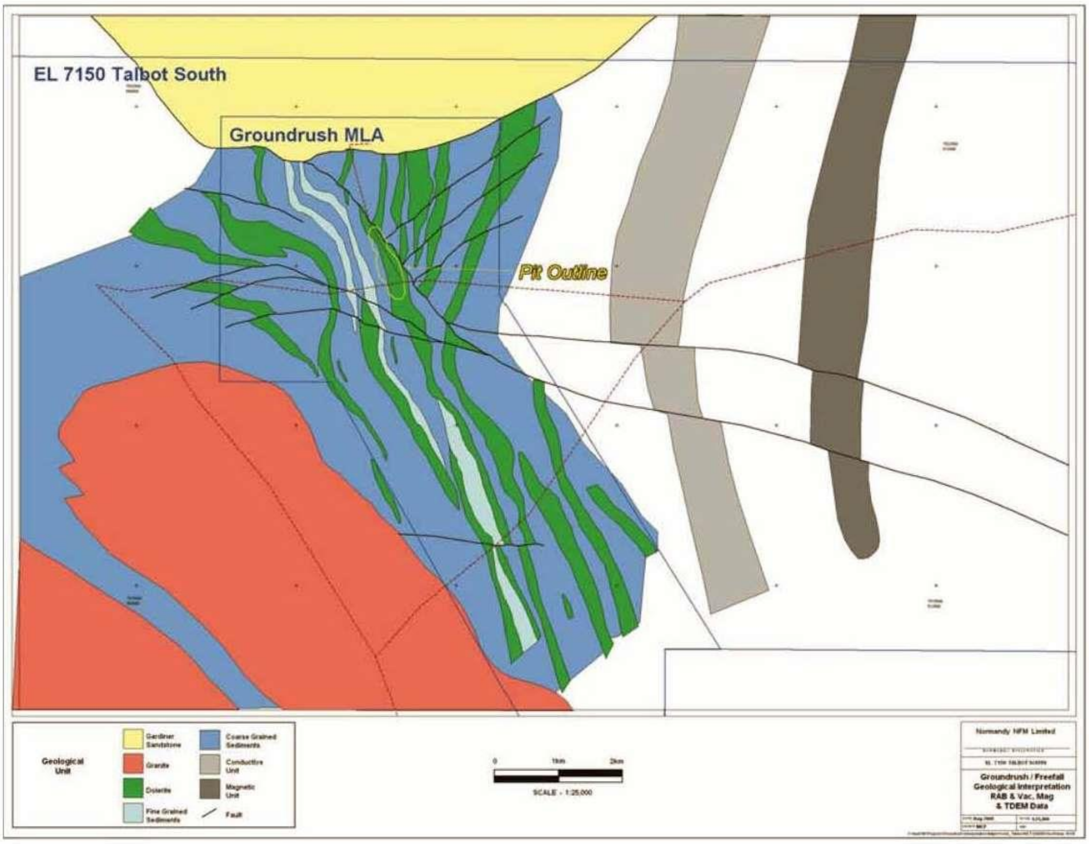


Figure 3 Tenement Geology

3.3 GROUNDRUSH DEPOSIT

The Groundrush deposit mine sequence consists of three steeply west dipping dolerite sills (west to east; the Western, Tombstone and Groundrush Dolerites) which intrude turbiditic metasediments of the Killi Killi Formation. All three dolerite sills strike approximately NNE (020°) and dip steeply to the west (70 – 80°) sub parallel to the metasediment sequence. Gold mineralisation discovered to date is primarily hosted within the largest of these three sills, the Groundrush dolerite. The Groundrush dolerite sill (150m true width) has undergone fractional crystallisation from a mafic melt and consists of a core of more intermediate quartz dolerite within an outer more mafic dolerite. The two zones can be separated based on the presence of a spheroidal granophyric texture within the quartz dolerite and also by the higher proportion of felsic minerals (quartz and plagioclase), which bring the rock to an almost intermediate composition.

The transition between the two dolerite phases is commonly marked by a zone containing patchy quartz and feldspar clusters and blue coloured quartz crystals within the more mafic core of the dolerite. This transitional zone varies in width from one to ten metres. On the eastern side of the sill the transition from quartz dolerite into a more mafic dolerite has been identified indicating that the crystallisation of the sill was not solely formed by gravity induced crystal settling, but by fractional crystallisation. Gold mineralisation within the Groundrush Sill is found predominantly within the quartz dolerite and proximal to the zone of transition between the two phases.

The Tombstone Dolerite (30-50m true width), situated immediately to the west, predates and is cross cut by the Groundrush Dolerite. The point at which the Tombstone Dolerite is truncated by the Groundrush Dolerite occurs at approximately 200m below surface; however, this intersection plunges slightly towards the south of the deposit. A narrow chill margin within the Groundrush dolerite marks the contact between these two dolerites and can be observed in drill core. Mineralisation identified within the Tombstone Dolerite to date is limited to the area where it abuts the Groundrush dolerite. In this area the combined width of the dolerite body is effectively increased, promoting brittle failure and mineralised shallow west dipping veins propagate out across the Tombstone/Groundrush dolerite contact at this point.

A zone of metasediment (formerly the Groundrush Internal Sediments) separates the Groundrush and Tombstone dolerites below the point at which the two sills intersect. This sediment unit, now referred to as the Lower Turbidites, ranges from several metres wide below where the dolerite sills intersect to tens of metres wide at deeper levels as the two dolerite sills diverge. It has been interpreted that some narrow sediment intersections with the dolerite sills outside of the Lower Turbidites represent independent clasts which have been entrained or surrounded during the emplacement of the Tombstone and Groundrush dolerite sills. The Lower Turbidites do not host gold mineralisation although some mineralised zones have been found along the margins of these sediments. Foliated dolerite is commonly observed on the western margin of the Groundrush sill in close proximity to the contact with the metasediments. This foliation has been interpreted as a ductile shear which formed along a zone of structural weakness that exists at the contact between these two units.

Up sequence, to the west of the Groundrush and Tombstone dolerites lies the Western Dolerite (50-80m true width). This dolerite sill is separated from the aforementioned units by a metasedimentary turbiditic sequence of sandstones and minor siltstones (150m true width). The orientation of the Western Dolerite is such that it cross-cuts the hanging wall sediments towards the south of the deposit, reducing the separation between it and the Tombstone and Groundrush sills.

Two narrow zones of gold mineralisation have been intersected within the southern end of the Western Dolerite (between 24250mN and 24450mN). The central region of the dolerite sill within this zone is slightly more felsic than the surrounding dolerite showing signs of weak crystal fractionation of the unit. It is interpreted that due to the narrower width of the Western Dolerite, it was cooled relatively quickly and therefore, was not able to fractionate to the same degree as the Groundrush Dolerite.

Three late dykes, a tonalite porphyry, quartz monzodiorite, and basaltic andesite intrude the Groundrush sill. All dykes are located proximal to shear zones and/or faults and cut across mineralised lodes. Where these dykes cut through the mineralisation, they are weakly to non-mineralised which suggests they were emplaced prior to mineralisation but that they were not favourable regions for gold precipitation. Where these intrusions have been found to contain gold mineralisation, they are also cross-cut by quartz veining.

The Groundrush Quartz Monzodiorite dyke (GQM) is the only dyke that is found over the length of the deposit. Two sub-parallel GQM dykes exist between 25525mN and 24950mN, while south of 24925mN, only one GQM dyke has been identified. The GQM dyke can then be traced through to the southernmost extent of TNT's drilling.
Some confusion surrounds the previously referred to Groundrush Andesite Intrusive (GAI), in that it only appears in areas where the GQM is interpreted to occur (i.e.

surrounded on either side by the GQM). This dyke was originally separated from the GQM by petrological studies however, the current belief is that this dyke is conceivably a finer grained, more 'cooked' form of the GQM. Further petrological work is required to confirm this.

The Groundrush Tonalite Porphyry (GTP) is located from section 25200mN through to the southernmost extent of TNT drilling. In the north of the deposit, the GTP is truncated by the footwall fault and in many sections multiple dykes of GTP have been intersected. Moving south as the footwall fault trends away from the Groundrush deposit, only one GTP dyke has been identified in drilling. The Groundrush Basaltic Andesite dyke (GBA) is located between 25425mN and 24750mN. This narrow dyke is often found in zones of foliated quartz dolerite and is sometimes replaced by a 5cm wide fault in its interpreted position.

In the south of the deposit the GTP and GQM are found in close proximity to one another, on the same orientation, which suggests that these intrusives may be located on the same structure. Both the GTP and GQM often contain 2-5cm wide clasts of dolerite and quartz material and the GQM has been found to contain clasts of GTP indicating that the quartz monzodiorite intruded after the tonalite dyke. The orientation of the three intrusives is sub-parallel to the mineralised lodes.

A large, late-stage regional fault occurs immediately to the east of the Groundrush deposit. This Footwall Fault dips moderately to the west and strikes obliquely to the mine sequence geology, truncates the Groundrush Dolerite and mineralisation towards the northern end of the deposit but veers away from both towards the south.

Numerous other dolerite sills have been interpreted in the area based on aeromagnetic imagery and scout RAB drilling. While the Groundrush dolerite remains the principle unit identified to date hosting economic gold mineralisation, further promising gold discoveries have been delineated in the similar Ripcord dolerite 3km to the south.

The Groundrush area has a low magnetic signature. This is thought to be the result of magnetite destruction, due to intense metasomatic alteration associated with mineralisation (Marjoribanks 2011). The magnetic low terminates against the Footwall Fault to the north of the pit, but can be traced south of the Groundrush Dolerite 3-4Km in the Ripcord Prospect area (Marjoribanks 2011).

3.4 MINERALISATION

The majority of veining at Groundrush is interpreted to have formed during the deformation event that created the anticline on which Groundrush sits (Stevens and Stevens 2004). Veining is focused within the central, quartz dolerite portion of the Groundrush dolerite and forms a network or mesh within this zone.

Veining consists of quartz ±carbonate ±chlorite extension, shear, and shear-extension veins. Gold mineralisation is found within both extension and shear veins although, it is important to note that the bulk of mineralisation lies within the extensional veins. Mineralised veins consist of quartz, chlorite (± pyrite, ± pyrrhotite ±arsenopyrite, ± gold) and quartz, carbonate (± chlorite, ± pyrite,± arsenopyrite, ± gold) and gold is typically found on vein margins or proximal to dolerite clasts within the veins. Visible gold is commonly observed in mineralised quartz chlorite veins and while fine gold is also present, it is generally associated with the more carbonate rich veins. Although very uncommon, gold mineralisation has been found within the sediments, but is restricted to narrow quartz veins.

Large zones of lensoidal extensional veins are commonly found within the main shear-hosted mineralisation at Groundrush making orientation measurements difficult in some areas due to irregular contacts with the host dolerite/quartz dolerite. As a result, the majority of vein orientation measurements have been taken on narrower veins.

Veins are predominantly moderate to steeply west dipping, however; a minor constituent of shallowly west dipping veins also exists. No apparent difference can be noted between the orientations of the mineralised and non-mineralised veins at Groundrush.

Mineralisation trends at 017° (NNE), dips at 80° to the west and plunges 015° towards the south. Mineralised lodes at Groundrush include the main shear-hosted lodes, multiple flat lodes, the high grade vein, Groundrush deeps, and the southwest lodes.

As previously mentioned, the majority of mineralisation at Groundrush is found within steeply west dipping shear lodes that range in width from 1 - 30m and are mainly composed of lensoidal, extensional quartz veins. These shear lodes are stacked upon each another, separated by either intrusions or narrow shear/fault zones. Flat lodes are found predominantly in the north and central portions of the deposit. The majority of these lodes dip shallowly to the west, while there is a small component of shallowly east dipping lodes. Both the west and east dipping flat lodes have been determined to undulate across the deposit and pinch and swell displaying an almost boudinaged appearance. All of the flat lodes plunge moderately to the south and south of section 24800mN, the flat lodes have been either truncated by the footwall fault or have simply petered out.

The High Grade Vein (HGV) was identified at Groundrush near the end of mining operations by Newmont in 2004. As a result of the late discovery, this aspect of the deposit was not fully explored. HGV mineralisation occurs in the form of a high grade, quartz shear vein and displays a more northerly strike than the main mineralised zone. TNT had utilised RC drilling to target the HGV mineralisation south of the pit. A zone of patchy, though predominantly high grade (30g/t Au) was outlined as far south as 24200mN. Where intercepts were found to be only weakly or non-mineralised at the expected target zone, the lithology was found to be predominantly tonalite. This tonalite dyke runs up the same shear zone as the HGV, possibly ‘blocking’ or terminating mineralisation in parts where adequate host material was not available for mineral precipitation.

Groundrush Deeps mineralisation has been identified between 24675mN and 24200mN. This zone of mineralisation was first detected while drilling two deep exploration holes on section 24400mN. A broad zone of mineralisation was intersected in these two holes at 340 – 440m below surface. The next step-out drilling, 200m to the south, again intersected strong mineralisation and confirmed continuation of the mineralised system down plunge and the considerable potential for new resource discoveries.

Mineralisation in the Deeps region is similar to that of the main zone in that it appears to consist of multiple stacked lensoidal lodes, separated by either an intrusion or a shear zone. This mineralisation differs to that of the main zone in that it is predominantly shear hosted and contains substantial pyrite within the well-defined shears. Mineralised extension veins consist predominantly of quartz, carbonate, and chlorite +/-arsenopyrite commonly with silica-sericite alteration halos. In contrast to the main shear hosted lodes further to the north, heamatite alteration often associated with mineralisation is largely absent from the Deeps lodes.

RC drilling by TNT southwest of the Groundrush open pit has outlined two zones of mineralisation located within the Western Dolerite. This zone has been called the West Zone. Where gold mineralisation has been identified, the surrounding dolerite is composed of an increased proportion of felsic material which provides evidence for a weak to moderately fractionated zone within this dolerite. More drilling is required in this area to delineate the extent of mineralisation.

3.5 SUMMARY OF STRUCTURAL MODELS

Marjoribanks (2011) notes two distinct structural zones; the mainly steeply west dipping zone, which is highly deformed, and a "very open style of F1 minor folds …. not compatible with regional isoclinal folding.", and which occurs in sediments encountered in the footwall to the east (Figure 4). The majority of mineralisation, however, occurs within the highly deformed zone to the west of the footwall shear and is generally accepted to be related to the NE-SW oriented D2 compressive event

(Stephens, 2004), resulting in deformation and penetrative foliation (S2) within which Groundrush is "'interpreted to be located on the western limb of an upright, shallowly south-south east plunging anticlinal thrust stack" (Bland and Annison, 2016). Within the deposit, this has resulted in the development of a steep southwest-dipping reverse fault, penetrative foliation (S2) and the formation of mineralisation related shear and extension vein arrays (Stephens, 2004).

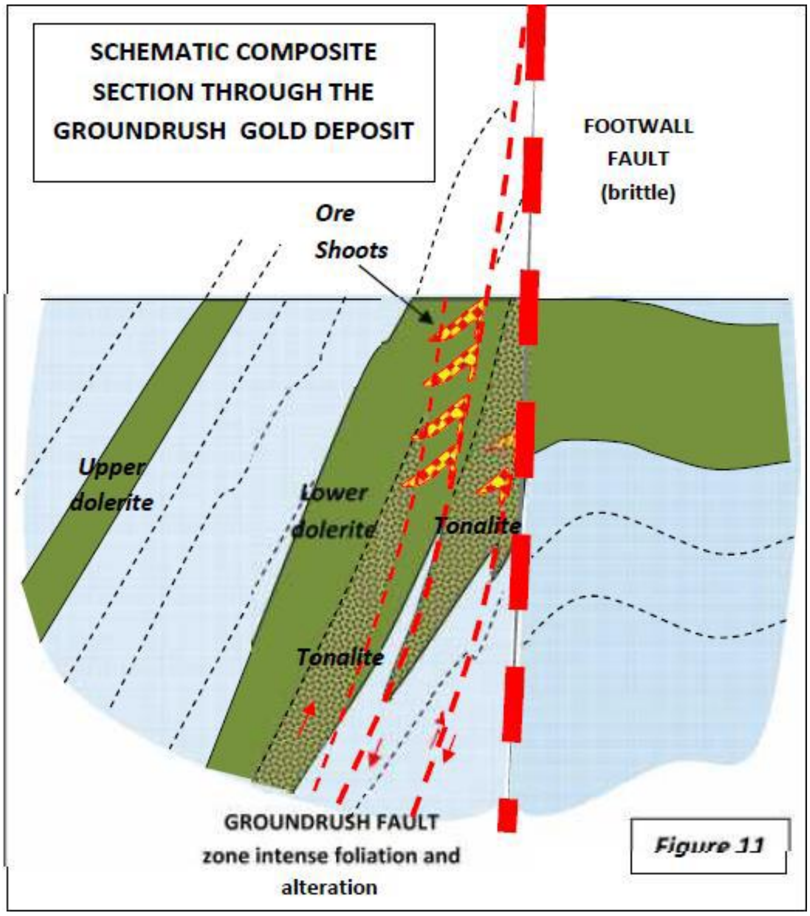


Figure 4 Schematic Composite Section through the Groundrush Deposit (after Majoribanks, 2011)

This structural setting has been extensively described by both Mason (2011) and Marjoribanks (2011) and ascribed as the key control on mineralisation by Pascoe and Eggers (2012) –"The build-up of frictional stress along shear zones due to high fluid pressure would have been high enough to prevent shear failure. As the frictional or shear stress built up along this plane, fractures would have developed creating a decrease in fluid pressure that in turn resulted in a decrease in shear stress allowing rupture along the shear, resulting in phase separation due to fluid cycling and therefore gold precipitation." This was, no doubt, additionally enhanced by sulphidation reactions with the reactive, dominantly Groundrush quartz dolerite (tonalite in Figure 4) as described by Marjoribanks (2011).

Comparing a section through the Groundrush deposit as presented by Pascoe and Eggers (2012) (Figure 4) with a schematic section from a similar geological setting related to gold mineralisation (e.g. Sigma-Lamaque in the Abitibi (Robert and Brown, 1986), the predicted and observed vein and shear orientations, modified in the case of Groundrush by on-going progressive compression, correlate well, and agree closely with Figure 3 as proposed by Marjoribanks (2011). Mason's (2011) early work defined two principal types of veins ('Ve' –Extensional Veins, and 'Vs' –Shear Veins). Marjoribanks (2011) who refers to vein types in his report, also shows what appears to be a hybrid tension and shear vein. While the image is not oriented, it appears that the vein is steeply dipping across the core, suggesting a Vs type vein orientation. It is of note as it appears to show reactivation in shear of earlier "red-rock" altered flatter tension vein arrays.

Stereonet analysis presented by Stevens (2004), Mason (2011) and Pascoe and Eggers (2012) broadly agree and defineg two dominant orientations. One orientation is moderately west dipping, which agrees with Mason's Ve orientation, but shows a secondary orientation dipping moderately to the east. The second dominant orientation is moderately to steeply dipping to the west, which corresponds with Mason's Vs orientation. Work completed by Bland and Annison (2016) during the resource review by NST in 2015 indicates that the intersection of these two vein orientations, defining a plunge of approximately 300 towards approximately 1580, is a key control on high grade mineralisation, agreeing with a general plunge orientation referenced by all other authors.

Pascoe and Eggers (2012), sought to understand the orientation of mineralised veins versus unmineralised veins. Their mineralisation-only related stereonet, while quite diffuse and encompassing both shallow and steeper orientations, clearly shows the dominant orientation as steeply west dipping, and which correlates with Mason's Vs veins. It is worth noting that the different datasets appear to show slight changes in the overall strike, with the largest dataset from Pascoe and Eggers (2012) showing a NNE-SSW overall orientation as opposed to NNW-SSE orientations defined by earlier authors. Pascoe and Eggers (2012) however reference “Mine North” elsewhere in the report which may account for this rotation. Providing additional detail, Bland and Annison (2016) also demonstrated, having identified 20 vein sets and subsequently niche sampling them, that there are three each of west dipping and east dipping vein sets that have an average gold grade above the (global) average vein grade.

4. WORK COMPLETED

Exploration work has continued over ML22934 to better understand the geological setting of the Groundrush deposit, and to identify and grow surrounding satellite mineralisation.

4.1 GEOLOGICAL MAPPING AND LEGACY DRILL CHIP SAMPLING

To develop constraints on the geological interpretation of the Groundrush area, surface reconnaissance was undertaken to assess the presence of remnant drill chips from legacy drilling. The aim of this program was to provide a sample for geological re-logging, and if there was sufficient sample, to perform a laboratory assay of the material. During this program, any outcropping rock was mapped and catalogued in the GIS Mapping database. A total of 54 points were collected, four of which were legacy drill chip samples selected for laboratory analysis. Figure 5 is a map showing the areas covered by this field program.

Geological mapping failed to identify sufficient outcrop of the Mining Lease to further improve the existing geophysical interpretation. However, samples that were assayed have contributed to a study, analysing and comparing the geochemical signature of the stratigraphy for the Groundrush deposit, against that of the Central Tanami gold deposits. This work is ongoing as data compilation is being undertaken across a vast region of the Tanami.

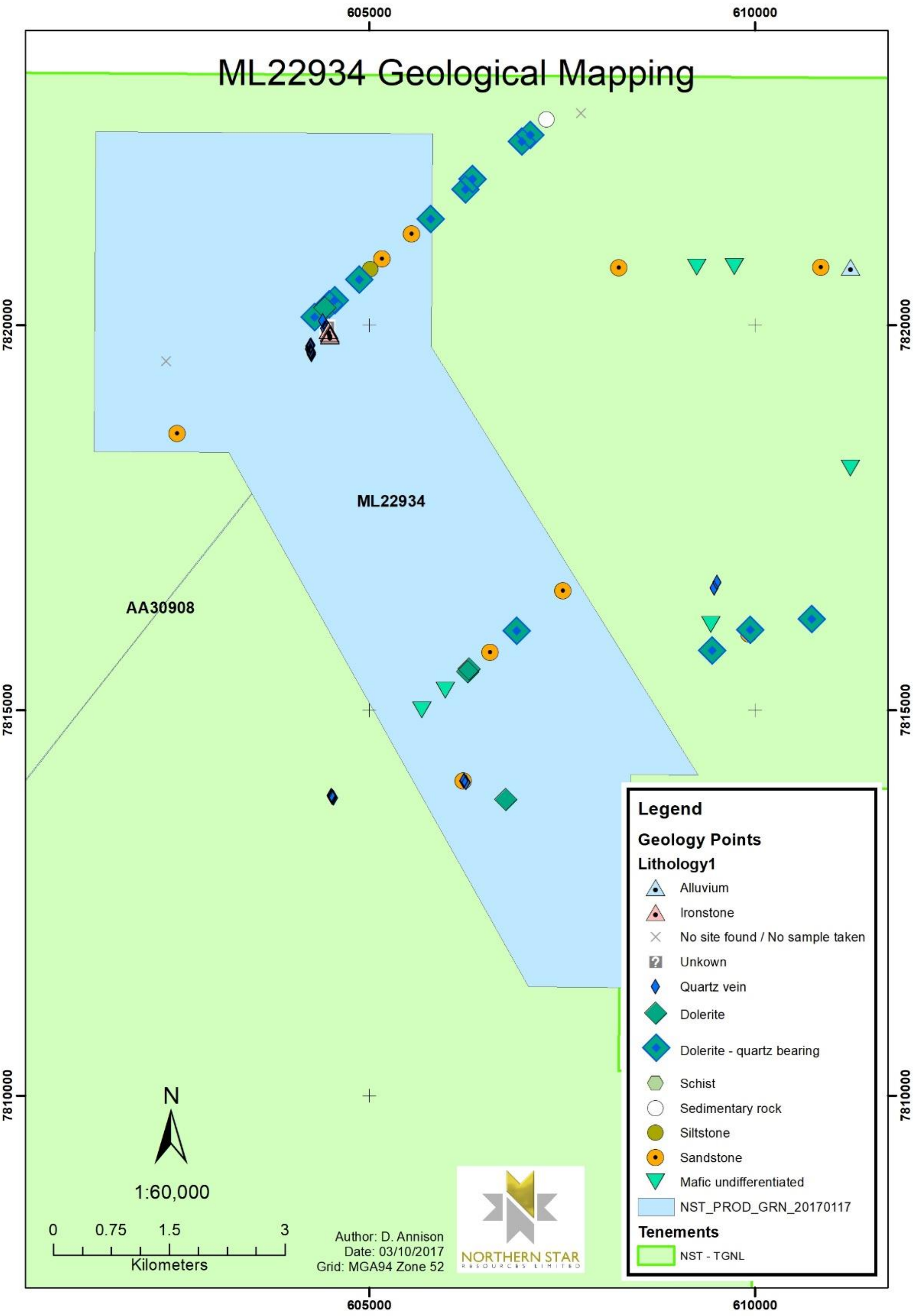


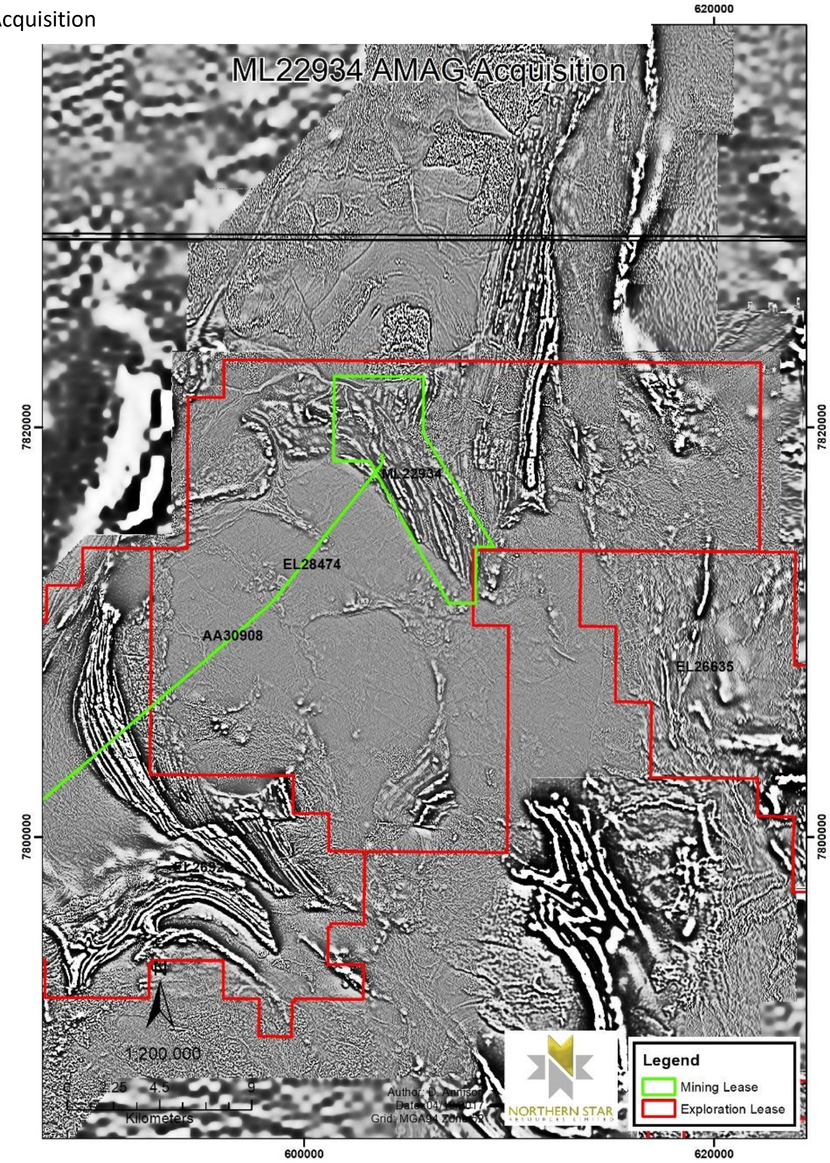
Figure 5 Geological mapping and drill chip sampling

4.2 GEOPHYSICAL REVIEW AND SURVEY ACQUISITION

Following the previous years' review and reprocessing of geophysical datasets, NST decided to undertake a regional scale airborne magnetic-radiometric survey covering ML22934. This program was undertaken to provide a high-resolution dataset to better assist geological interpretation and targeting.

The regional airborne magnetic and radiometric survey was carried out between May 28 and August 4, a total of 77,940 line kilometres were flown over an area approximately 4,500km^2. Raw AMAG data covering the Groundrush tenement merged with regional datasets is shown in Figure 6. Data processing and preliminary interpretation for this region is ongoing.

Figure 6 AMAG Acquisition



4.3 MMP VARIATION SUBMISSION

In September 2017 NST submitted a variation to the Tanami Regional Exploration MMP to include target areas on EL28474, adjacent to ML22934. This submission is currently under review, once approved drilling in the proposed target areas will strongly assist in providing a stronger understand of the regional geological framework that the Groundrush deposit lies in.

With further geological targeting and exploration work over ML22934, several key targets will be refined and work programs developed, this process will include an MMP variation submission to commence works in the 2018 field season.

4.4 FEASABILITY STUDIES

Feasibility studies for the Groundrush deposit are ongoing. Significant delays were incurred due to the application process for the initial Central Tanami MMP. These studies are scheduled to continue through 2018.

5. CONCLUSIONS AND RECOMMENDATIONS

Exploration and analysis of the Groundrush deposit will continue over the proceeding reporting period. Detailed geological interpretation of the recently acquired magnetic and radiometric data will be undertaken, and will be a significant driver in exploration targeting. Following approval of the Tanami Regional Exploration MMP, Air Core drilling will be conducted on targets adjacent to ML22934 which will provide additional geological information to better understand the Groundrush domain. Feasibility studies of the economics of the Groundrush deposit and greater Central Tanami Project will be ongoing throughout 2018.

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