TNT MINES LIMITED

ABN 67 107 244 039

RL10/1988

MOINA

ANNUAL REPORT TO 21 OCTOBER 2013

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1.0 INTRODUCTION

1.1 Location and tenure

The Moina tenement is located approximately 40km south-west of Devonport, in north-west Tasmania (Figure 1). The 2 km^2 tenement is centred approximately 2 km south-west of the small town of Moina. The tenement area can be found on the Forth (1:100,000) LTIS map sheets.

Topographically the area is of variable relief with patches of rainforest, plantation and farmland. Vehicular access is good with Moina Road running through the tenement and numerous rough tracks giving 4WD access to most of the tenement. The land tenure is a mixture of State Forest and private freehold.

The owner of the tenement is Geotech International Pty Ltd ("Geotech"). That company has entered into an option agreement with TNT Mines (Moina) Pty Ltd, a wholly owned subsidiary of TNT Mines Limited (formerly part of the Minemakers Australia group).

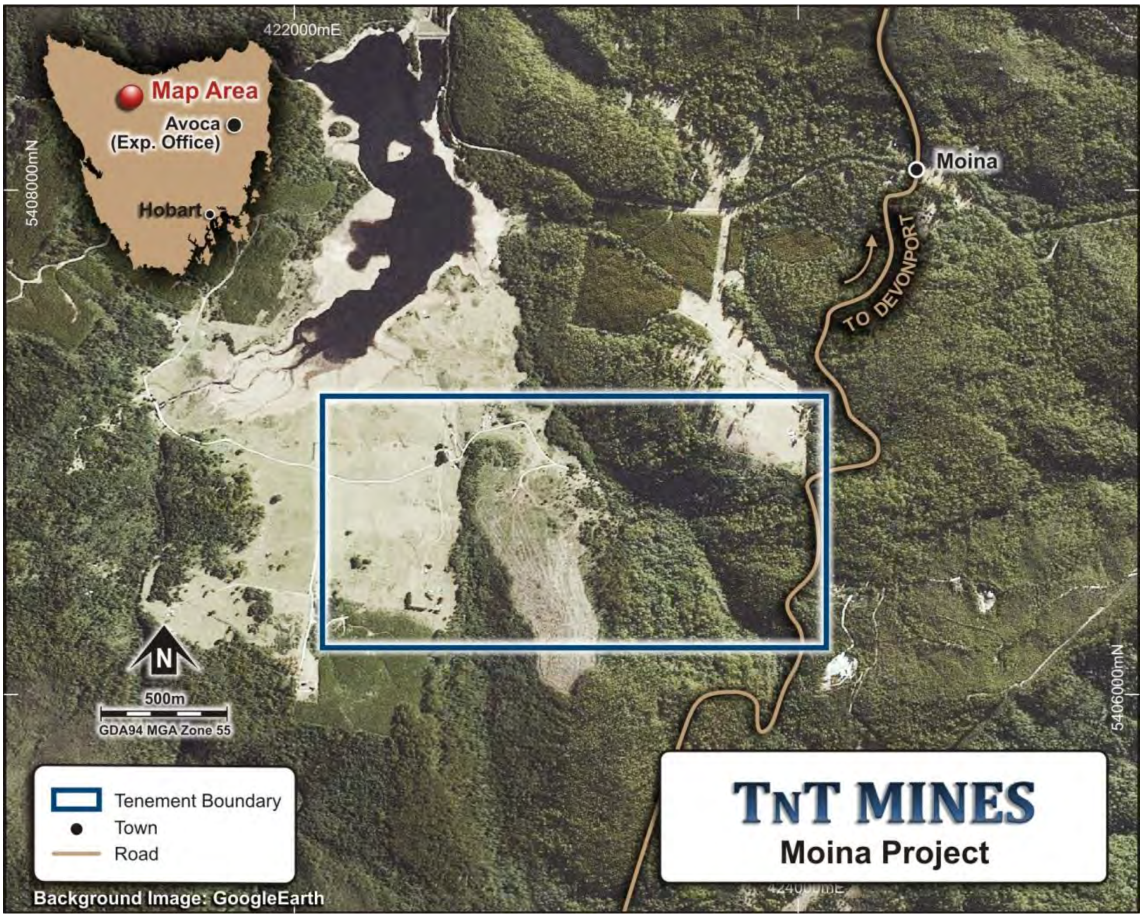

Figure 1: Tenement location plan

1.2 Geology

Tenement geology is shown below in Figure 2 and is taken from Map 9 (1:25,000) Geology of the Winterbrook – Moina Area, of the Geological Survey of Tasmania's Mt Read Volcanics Project 1989.

RL10/1988 is underlain by a thin sequence of Ordovician sediments. The Ordovician sedimentary package is a graded sequence of shallow water marine sediments with Roland Conglomerate at the base, overlain by medium to coarse grained Moina Sandstone, which in turn is overlain by Gordon Limestone. These three formations are conformable, gradational, and relatively thin, typically being in the range 50m to 150m thick. The sedimentary package dips gently north and has been lightly folded with fold axes trending NW sub parallel to the Bismuth Creek Fault. The sediments have been disrupted by a number of NW trending normal faults, principal of which is the Bismuth Creek Fault.

The Ordovician sediments are underlain in part by Cambrian volcanics and were intruded in Upper Devonian times by the Dolcoath Granite. A 2km wide stock of this leucogranite outcrops 3km to the east of Moina with an average composition of 40% orthoclase, 35% quartz, 20% plagioclase and 5% biotite. Gravity data indicates a west trending spine of this granite underlies RL10/1988 at depths of less than 1km. Drilling has revealed that beneath Moina the granite has been metasomatically altered to greisen. A Tertiary erosion surface, characterised by cemented gravels (graybilly) is patchily developed on the Ordovician sediments. Tertiary basalts, which are variably magnetic, cover substantial sections of the tenement area.

A large zone of hydrothermal alteration was associated with this granite spine. It caused dominantly iron and fluorine metasomatism of the Gordon Limestone and of calcareous beds in the Moina Sandstone and resulted in the formation of the Moina Skarn. These fluids were accompanied by variable amounts of tin, tungsten, bismuth, and molybdenum, which were fractionated from the granite; and by some precious metals and base metals either from the granite or leached from the Cambrian volcanics that lie between the sediments and the granite. This metasomatism resulted in a pocket of higher grade metamorphism turning the limestone to marble, the sandstone to quartzite, and indurating the conglomerate.

The Moina Skarn, with its associated tin-tungsten-fluorine veins and greisen, has been deposited in the roof above the Dolcoath Granite where it replaced Ordovician sediments. The skarn occurs as a thick horizontal plate roughly 1km in its longest dimension and up to 100m thick. It is separated from the granite's upper near horizontal contact by about 200m of the Moina Sandstone and replaces parts of the Gordon Limestone. The plumbing system for the mineralizing fluids was probably a series of east-west trending tension fractures, now tin-tungsten-quartz veins, associated with the major NW trending Bismuth Creek Fault and named the Shepherd and Murphy Vein Swarm. Emplacement of the granite was at shallow depths, probably less than 3km.

The main body of skarn is zoned and consists of:

- A top zone of a granular garnet-pyroxene-vesuvianite-fluorite skarn overlying the other units. This unit is relatively enriched in boron;
- The main skarn ("wrigglite") of fluorite-magnetite-vesuvianite (cassiterite-scheelite- adularia) and having a characteristic, fine grained (less than 0.2mm), rhythmic, finely layered, contorted structure;
- Within and near the base of the main skarn a granular, pale green pyroxene skarn occurs as thin units (less than 5cm) consisting of diopside-hedenbergite with very minor amounts of fluorite and garnet;
- A wollastonite-rich skarn may be present in places and can be a useful marker. It is probably derived from a silty/sandy facies of the limestone and consists of over 80% by volume of wollastonite with small amounts of garnet, pyroxene, vesuvianite and fluorite;
- A basal zone of granular garnet-pyroxene-vesuvianite-fluorite skarn;
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However, the skarn is essentially variable depending on local factors that controlled the metasomatism. A number of distinctly different skarn types are found in limited quantities in other areas where metasomatic conditions varied. The two most notable are the pyrrhotite skarn and the sphalerite skarn. The former consists of medium to fine grained pyrrhotite, magnetite, fine grained actinolite/chlorite, and minor fluorite; the latter of granular to massive andradite garnet with minor diopside containing conspicuous bands of closely spaced lenses of sphalerite with quartz.

The various skarn units can carry up to 25% (by weight) fluorite; 0.6% tin, 0.5% tungsten, 0.2% beryllium, 27.5% zinc, and 4.5 g/t gold. Tin, beryllium, and iron values increase toward the upper part of the skarn sequence but zinc, copper, and molybdenum values are erratic. Secondary zinc-copper-indium-cadmium-gold-sulphide-amphibole alteration of the primary fluorine-tin-beryllium oxide skarn is related to the Bismuth Creek Fault. When the primary wrigglite skarn is altered, tin is largely lost from that part of the skarn.

The hydrothermal fluids that extensively skarned the Gordon Limestone resulted in the formation of a number of known significant mineral deposits, including:

- The Shepherd & Murphy vein swarm, consisting of a set of east-west near vertical veins containing tin-tungsten-bismuth-molybdenum mineralisation.
- The fluorite-magnetite “wrigglite deposit” in the basal section of the Gordon Limestone west of the Bismuth Creek Fault.
- The zinc-bismuth-gold mineralisation in the Hugo Skarn east of the Bismuth Creek Fault where the Hugo Thrust, which strikes E-W and dips north at 30°, has removed the top of the skarn and thrust older sediments over the top of the skarn.
- The auriferous pyrrhotite skarn west of the Shepherd & Murphy Mine.

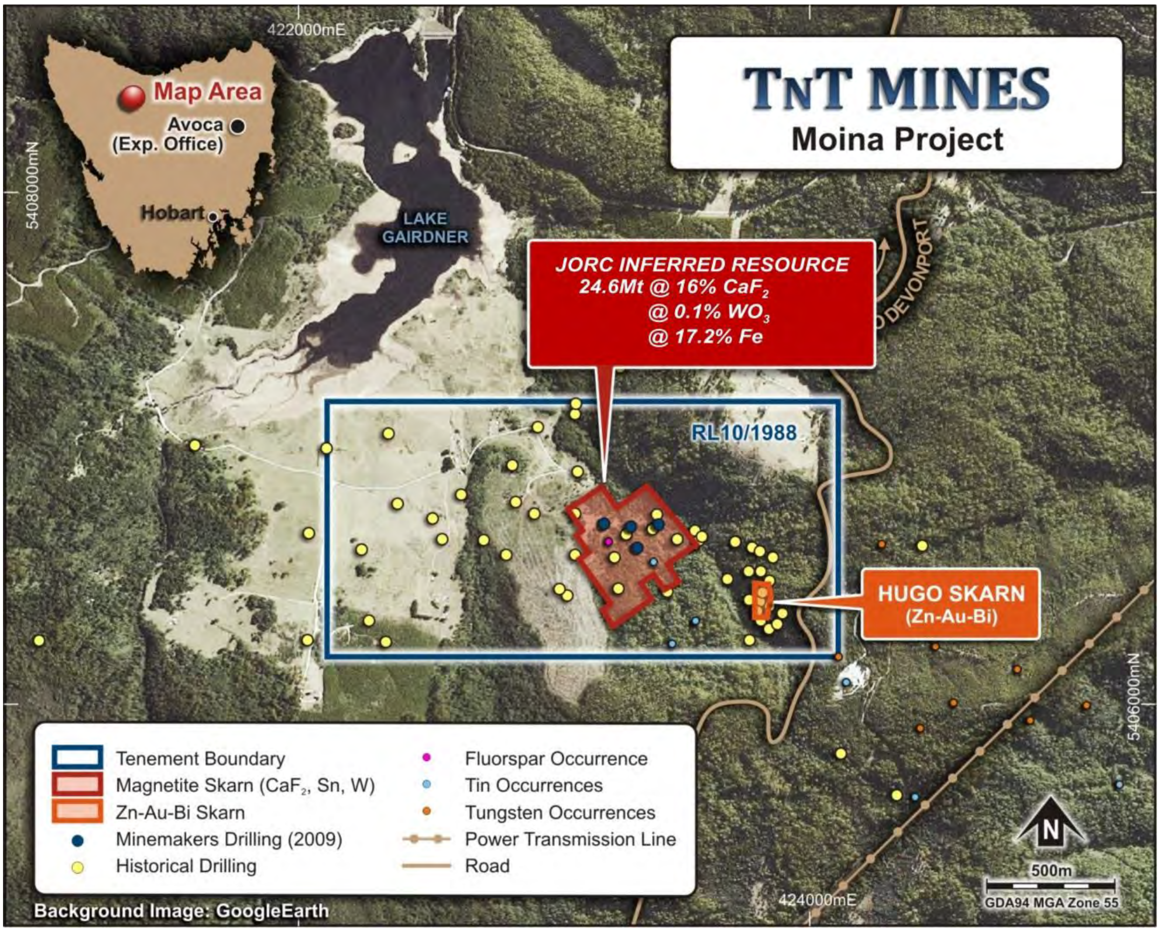

Figure 2: Tenement geology

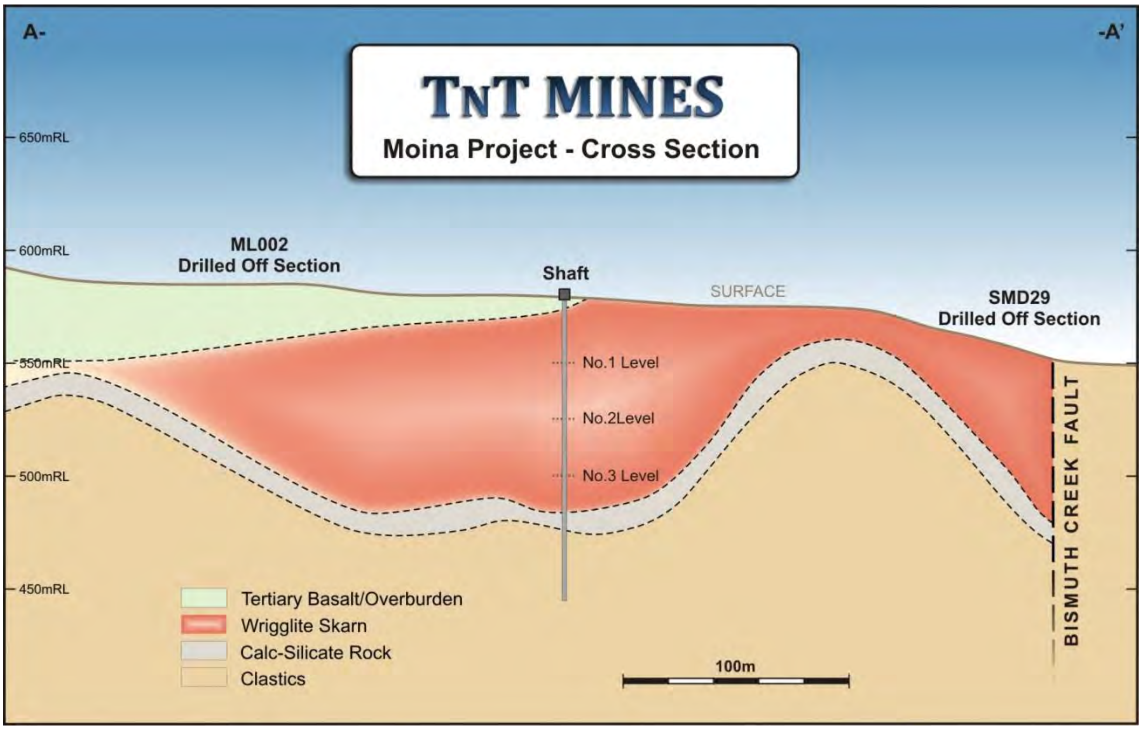

Figure 3: Section through Moina deposit

1.3 Exploration Rationale

The Moina fluorspar deposit has been known about for a long time but has remained undeveloped due to the ready availability of cheap, high quality fluorspar. This situation has changed over the past five years or so and the supply of high quality fluorspar has decreased and the price risen significantly.

The Moina fluorspar deposit has a pre-JORC resource estimate of 26.5Mt @ 18% fluorspar, 0.1% tungsten and 0.1% tin. The deposit also contains significant magnetite. Metallurgical test work carried out in the 1970s and 1980s was unable to define a clear pathway to generate a saleable product. TNT Mines believes that advances in processing technologies since then combined with dwindling fluorspar supply and consequent higher prices mean that the potential to develop an economically viable operation at the Moina deposit is now as high as it has ever been.

TNT Mines aims to:

- Undertake the necessary metallurgical test work for optimal circuit design.
- Drill out sufficient of the main deposit to at least JORC-compliant Indicated Resource status and to allow open-pit design optimization for, say, an initial 10 year operation.
- Assess the potential to market the bulk commodities fluorspar, magnetite, tungsten, tin and sulphides.
- Complete bankable feasibility study and, if economic, commission an open-cut mining and processing operation.

- JACOBS SCOPING STUDY: Jacobs, a large international engineering company, were engaged to carry out a desktop scoping study on a mining operation at Moina. The study generate CAPEX and OPEX on an 800,000 tonnes per annum open pit mining operation producing magnetite, fluorspar and scheelite concentrates. The Jacobs study assumed a mining rate of 800,000 tonnes per annum with ore production based on the parameters outlined in Table 3.

Mineral	% in feed	Concentrate Grade	Recovery (%)	Dry tonnes per annum
CaF_2	18.2	94% CaF_2	68	86,369
Fe_3O_4	21.9	67% Fe	70	150,100
WO_3	0.12	65% WO_3	58	703

Table 3: Ore Production Targets

Jacobs took input from Shaw Contacting, Mining One and Mancala Pty Ltd. for mining studies and used their own expertise for process plant estimation.

They considered three scenarios: Owner Mined and Concentrated, Contract Mining, and Dry Lease of Mining Equipment. The first scenario was the most expensive and the latter two were similar.

For contract mining the estimated cost were:

CAPEX	**$96.7M**
Mining OPEX	**$12.34/t**
Process plant OPEX	**$16.56/t**
General and Administration	**$6.00/t**

The Jacobs study was the first step in the proposed development of a mine at Moina. The assumptions made, particularly in relation to feed grade and recovery will be modified by the metallurgical test work being carried out at present and this will likely have some effect on the capital cost of plant construction. The mining costs will not be significantly affected by changes in these assumptions as long as the mining rate is unchanged.

3.0 WORK COMPLETED DURING THE REPORTING PERIOD

3.1 Mineral Resource Estimate

A maiden JORC Inferred Resource estimate was made by Mick McKeown of Mining One. Historical drill data, including Minemakers 2009 diamond drilling, was used for the estimate. The resource is 24.6Mt at 16%CaF_2, 0.1%WO_3, 0.1%Sn and 17.2% Fe. The full report is attached as Appendix 1.

3.2 Metallurgical test work

No metallurgical test work was carried out during the reporting period other than the production of reports by ALS Ammtec summarising the magnetic separation, gravity and flotation work carried out at the Burnie laboratory, a report on the magnetite separation work carried out at ALS Ammtec Perth and a report summarising the combined test work. These reports are attached as Appendices 2-4.

4.0 DISCUSSION OF RESULTS

4.1 Mineral Resource Estimate

The mineral resource estimate was the first JORC-compliant estimate of mineralisation conducted for the Moina skarn and the estimate compared favourably with the historic estimate, although a drop in grade from 18% to 16% was noted for CaF_2. There is no QAQC on the original CaF_2 analyses from drilling in the 1979s and 1980s and there remain some uncertainties in regard to the true grade. Fluorine is notoriously difficult to analyse. It is also apparent from QEMSCAN work that approximately 8% of the fluorine in the Moina system deports to minerals other than fluorite and would not be recoverable. The original resource quoted tungsten metal, W, whereas the new estimate quotes the oxide tungstate, WO_3.

Substantial further drilling with rigorous QAQC for fluorine would be required to lift the JORC category to Indicated or Measured.

The previous historic estimate for Moina was: 26Mt @ 18% CaF_2, 0.1%Sn and 0.1%W
The new Inferred Resource for Moina is: 24.6Mt @ 16% CaF_2, 0.1%Sn, 0.1% WO_3 and 17.2% Fe.

4.2 Metallurgical test work

A final report on the metallurgical test work conducted at ALS AMMTEC in Burnie and Perth was received from Mintrex (Appendix 4). The work demonstrated that a saleable tungsten concentrate could be produced, an acid grade quality fluorspar concentrate could be achieved but would require agglomeration to be saleable and a marginal magnetite concentrate was separated. No recoverable tin was separated. Based on the test work, the following comments represent the current status of Moina beneficiation work.

- Fluorspar – 48% recovery @ 75µ grind (potential for 72% CaF2 recovery at final grind size of 25µ)
- Scheelite – 25% W recovery to 65% WO3 grade (potential for 42% W recovery; separate scheelite at 500µ)
- Magnetite - Magnetics in composite sample were 25% by weight; needs to be ground to 80% passing -20µ; grade will only just reach 58.5% Fe.
- Tin – not recoverable through conventional processes. Reports to the magnetite and fluorspar concentrates.
- Bismuth – insufficient work undertaken to comment.

5.0 CONCLUSIONS AND FUTURE WORK

The maiden JORC Inferred Resource for Moina has confirmed the large size of the deposit and the tenor of the mineralisation, albeit with a small decrease in the CaF2 grade. Any resource category upgrade will require a significant amount of drilling and more rigorous QAQC in regard to analyses of fluorine.

The summary reports and review of the metallurgical test work received this reporting year have essentially confirmed the preliminary results reported last year. The work has defined the style of pant design that will recover the three potentially economic minerals, fluorspar, magnetite and scheelite, and the potential recovery factors. No further test work was carried out this year due to a lack of funds.

Proposed work for next year includes:

- Test work to upgrade the magnetite concentrate through silicate flotation/regrinding and consequent increase in overall fluorine recovery through delivery of more fluorspar to non-magnetic stream. Budget – $30,000
- Investigation of potential to produce a heavy media product suitable for the coal industry. Budget – $20,000

Looking to the future, the following work will need to be undertaken:

- Define the magnetite resource by drilling and testing using typical magnetite techniques – magnetic susceptibility and Davis tube testing.
- Improve the fluorite recovery by recovering fluorite from the scheelite tails and the fine grinding magnetite tails
- Improve scheelite recovery at a coarser grind size of 500micron and reduce the losses to slimes.
- Rework the plant capital and operating costs based on the metallurgical recoveries determined by the recent and any future test work.
- Re-model mining costs.
- Conduct marketing studies on the magnetite and the fluorite to ensure that both will be sellable – the magnetite in terms of grade and impurities – and the fluorite in terms of size.

NOT DONE IN
2013 or 2014