

**SOFTWOOD PLANTATIONS PTY. LTD.**  
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2066

**ANNUAL REPORT**  
**MLN'S 196, 197, 198, 199, &200**

**MOUNT WELLS**  
**NORTHERN TERRITORY**

**EXPIRATION DATE 20/03/07**  
**(CURRENTLY UNDER APPLICATION FOR RENEWAL)**

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# **1. PROPERTY DESCRIPTION, LOCATION AND TENURE OF ML'S 196, 197, 198, 199 & 200 723**

The Mineral leases are located on Mount Wells. Mt Wells is located approximately 200 kmø south east from Darwin, in the Pine Creek Region. (Latitude 13°30ø3ö S and Longitude 131°43ø10ö E)

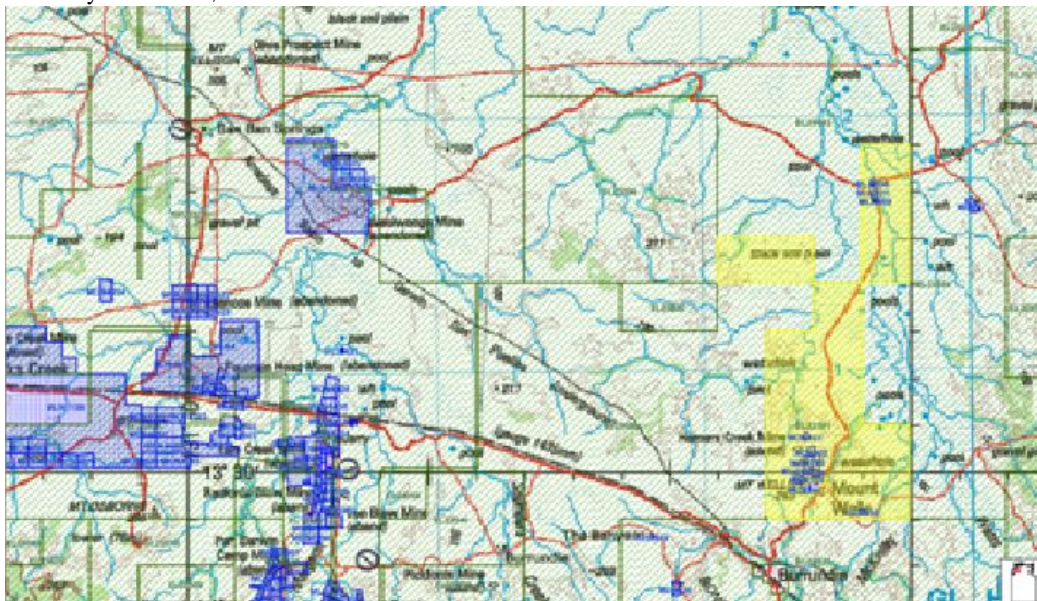
The first grant date for the tenement was on the 21<sup>st</sup> of March 1970 and expired on the 20th of March 2007. Currently the mining leases are under application for renewal.

Softwoodøalso purchased the adjacent land surrounding these tenements as well as the disused processing plant and infrastructure at the site. Softwood Plantations was subsequently bought by Outback Metals Pty Ltdøin 2007.

**Table 1. Tenement Details**

MLN	#	LOCATION	SIZE	UNITS	GRANT DATE	EXPIRY DATE
MLN	196	Pine Creek	3	HECT	21/03/1970	20/03/2007
MLN	197	Pine Creek	7	HECT	21/03/1970	20/03/2007
MLN	198	Pine Creek	8	HECT	21/03/1970	20/03/2007
MLN	199	Pine Creek	13	HECT	21/03/1970	20/03/2007
MLN	200	McKinlay River	13	HECT	23/03/1970	20/03/2007

**Figure 1.** The yellow area is the EL22301 with the MLNøø in blue within the yellow boundaries owned by Softwoodøø



**Figure 2.** Close up of MINØs. MLN 196 is shaded in red with surrounding MLNØs.



## 2. ACCESSIBILITY AND INFRASTRUCTURE

The area is accessed from the Stuart Highway and via various unsealed all weather roads. Existing adjacent infrastructure includes some processing equipment, dams, accommodation buildings, storage buildings & several drives. Electricity & gas supplies are available nearby. Water towers and storage tanks also exist on the site.

## 3. GEOLOGICAL SETTING

### 3.1 Climate and Topography

The Mount Wells field is located within the monsoonal region of Northern Australia, with the wet season beginning around November and continuing until around March. Average annual rain fall in the region is approximately 1000mm per year with 600mm in the summer and less than 25 mm in the winter. The average temperature in the summer is around 27 degrees centigrade and in the winter the average is 21 degrees centigrade.

Mount Wells itself is a hill with a spot height of approximately 262m. The region is relatively flat to the east with a significant water system, the McKinlay River and tributaries. The region is undulating with the Proterozoic meta sediments forming spot heights with ridges and valley.

The vegetation is comprised of open savannah woodlands and eucalypt forests consisting of mostly Bloodwood, Stringybark and Woollybutt varieties with acacias growing on the rocky areas. Along the water courses Pandanus palms and Paperbark trees are dominant.

### 3.2 Regional Geology

The Mt. Wells area located within the central portion of the Pine Creek Geosyncline, a Palaeoproterozoic structure containing fluvial and basal sediments. Mt Wells is dominated by structurally complex siltstones, sandy siltstones, phyllites, slates, and greywacke and pebble conglomerates of the Burrell Creek Formation (Finniss River Group). Rare carbonates and fine-grained felsic igneous rocks are also present. In the north east portion the Mount Bonnie Formation outcrops and is mainly composed of interbedded carbonaceous sericitic, pyritic or chloritic. slate, phyllite, mudstone and siltstone; fine to coarse feldspathic metagreywacke; ferruginous phyllite (metasiltstone) with chert bands, lenses and nodules also occur in this formation, which is prospective for Vein Au, Polymetallic Cu, Pb, Zn, Ag veins.

### 3.3 Mineralogy and Structure

Mt. Wells is located on a substantially elevated hill containing en-echelon lodes of copper & tin ore.

At Mt. Wells there are six tin-quartz lodes namely;

1. East Lode,
2. No 1 Copper Lode
3. No 2 Copper lode
4. Main Lode
5. West Lode
6. Northwest Lode

These lodes are essentially tension & fill quartz veins, striking 015 - 025°, dipping 75-85° east and have a strike length of up to 1km. The host rocks are siltstone and greywacke of the Burrell Creek Formation which form a north trending anticline. The width of the individual lodes averages 2 metres (0.5m & 5m) arranged in an en-echelon pattern. Contacts with the host rock are sharp and there is no evidence of displacement or movement. Lode occurring near the contact is brecciated. Branching of lodes into 3 or 4 narrow veins is common.

Cassiterite ( $\text{SnO}_2$ ) occurs as single coarse crystals or as aggregates along the hanging wall of most lodes. The coarseness of the tin mineralisation within the quartz lode combined with its erratic distribution, contribute to the inherent spotty nature of the mineralisation producing a high-nugget effect inducing contrast between adjacent lode sample assay results of near zero to several percent tin respectively.

The centre of the lodes is generally barren while the footwall is marked by hematite (oxidised sulphides) & quartz breccia which also contains cassiterite. The above breccia zone also occurs on the hanging wall in No 2 and No 3 levels possibly representing late stage sulphide-rich mineralisation. Sulphides are more common to the north side of the lode.

In primary ore, pyrite, chalcopyrite, arsenopyrite and pyrrhotite are common. Rare wolframite and molybdenite are also present. Common gangue minerals are quartz, muscovite, tourmaline, feldspar and chlorite.

Within the oxidised zone, extending to a depth of at least 50 metres the *ö*lodeö comprises quartz, hematite, limonite, cassiterite, malachite, chalcocite, bornite, covellite and scorodite.

Diamond drill cores have intersected lodes to a depth of 200 metres also intersecting a cupola of greisenised biotite / muscovite granite at depths of 150 ö 200metres.

Most *ö*lodeö does not continue into the granite however minor quartz-cassiterite veins are present within the granite and one such vein has been correlated with the Main Lode. Geochemistry by Mookhey (1971) indicates an increase in tin and Cu values going away from the granite.

The greisenised granite (intersected in drill holes) is equigranular; medium grained and contains muscovite, microcline, perthite, quartz and traces of biotite.

Accessory minerals include fluorite, sphene, apatite, rutile, hornblende, pyrite, pyrrhotite, arsenopyrite, cassiterite and chalcopyrite.

**Table 2: Regional Stratigraphy**

Group	Formation	Lithology	Thickness (m)
Finniss River Group	Burrell Creek	Greywacke, Siltstone, mudstone, rare chert, Fe concretions, conglomerate	3000
South Alligator	Mt Bonnie	Mudstone Siltstone Chert and Fe concretions	100-250
		Greywacke, mudstone, siltstone, chert, carbonaceous mudstone rare conglomerate	50 -150
South Alligator	Gerowie Tuff	Chert, mudstone, siltstone	200 ö 400
South Alligator	Koolpin	Carbonaceous mudstone, mudstone, siltstone	50 ö 150
		Fe concretions, mudstone, carbonaceous mudstone, siltstone	30 ö 100
		Carbonaceous mudstone, mudstone, siltstone, limestone	0 ö 250
Mount Partridge	Wildman Siltstone	Mudstone, phylite, siltstone, carbonaceous mudstone, sandstone	200 -400
Mount Partridge	Mundogie	Quartzite, arkose, pebble conglomerate, mudstone, siltstone	500



#### 4. PREVIOUS EXPLORATION

Tin was found in the Mt wells area in 1880, and in 1884 there was the construction of infrastructure including the linking of the 2 main ore bodies by a tunnel, an ore tramway, 2 dams and a 10 head stamp battery, which was subsequently upgraded to a 20 head stamp battery by 1895.

The area was worked mostly by Chinese from 1901 to 1929 when the mine was shut down due to a shortage of labour.

In the 1960s the Commonwealth Govt. constructed a battery and gravity treatment plant at the Mt Wells site to promote mining in the Pine Creek area. Other buildings including accommodation and tailings dams were also constructed around this time.

Jingellic Minerals became interested in the Mt Wells site in the 1970s, opening the east lode underground workings. Further drilling was carried out by and the Northern Territory Mines Dept, between 1971 and 1977. Approximately 100t of ore was removed in 1978 by Milwood and Murray.

Alluvial mining was carried out between 1978 and 1980 by Territory Mining. They excavated approximately 300, 000m of regolith from the watercourse between bottom dam and the McKinley River.

In 1980 Jingellic Minerals upgraded the government battery and replaced the gravity stamp with a rod mill. The mill processed ore until 1983 when the mill was closed, but was reopened to process ore between 1985 and 1986.

Territory Resources then acquired the tenements and commenced a prefeasibility report. A drilling program was developed to assess mining the West Lode as an open cut prospect.

In 1989 RC drilling by Territory Resources commenced. Territory Resources carried out substantial deep drilling, analysis, and sampling and extended the drive and tramway to the east lode. The records for 20 of the drill holes are available, as well as the assay results. Cross sections of the drill holes and maps of the site are also available.

In 1994 Territory resources sold the Mt Wells site to Softwood Plantations. Previous exploration on Mt Wells area has estimated a possible underground estimate of 737 000 t of ore averaging 1.38 % Sn, and a further open cut estimate of 400 000t of ore grading 0.4%Sn.

Furthermore an estimate of 971 000 t of ore grading 1.5% Cu plus wolfram credits has been located at the Mt Wells site

At present a plan exists to open cut the combined Copper/Tin/ Wolfram resources at Mt Wells.

## **5. EXPLORATION COMPLETED BY SOFTWOOD PLANTATIONS**

Softwood Plantations Pty Ltd proposed to commence open cut mining tin from the West Lode and Main/Intermediate lodes located at Mt Wells.

Previous drill programs at this site focussed on the potential of deeper ore which would be accessed by underground methods. Softwood carried out a drilling and sampling program to target shallower ore. Several areas of high grade tin ore were discovered during the surface sampling. Following assays of the drill and rock chip sampling, a plan was developed for the surface of the Mt Wells tenements and all data compiled from Territory and Softwood and then plotted using computer modelling techniques.

At this time period the price of tin fell from \$2.4426 USD / Lb to \$1.6783 USD/Lb. It was deemed uneconomical to continue to explore and mine at this time.

The increase in tin prices over the last year has warranted the renewal of detailed feasibility studies to commence.

### **5.1 Probable and possible ore reserves assessment at the Mt Wells Sn/Cu/W mine**

As part of the desktop studies completed by Softwood Plantations a review was made of the resources estimates in 2000. This review was relevant to determine the accuracy of previous estimates as the accuracy of information will affect the mining widths, which will be a factor of the current metal prices and mining processes.

There were sufficient assays of vein material to say that in the main lode systems (West, Main and East), the average quartz grade is 1.5-2% Sn, and in the tourmaline/quartz greisens 1%.

The metal prices will affect the actual mining process as the as the ore grade zones 1 and 2 are separated by below cut off grade material that will cause dilution. High metal prices will mean a bigger bucket on the excavator with less detail taking out the quartz vein, and the inclusion of more of the lower grade tourmaline breccias. This will naturally mean more tonnes of ore and will affect the ore to waste ratio.

#### **Main Lode**

A study of the historical mining indicated that the mineralisation is hosted by strongly sheared siltstone containing veinlets of Sn, Cu and As.

The mineralisation suddenly widened where the vein extended into massive greywacke, which hosts the main lode proper workings, which hosts the bulk of the ore material. The vein then re enters the siltstone 100m north of the main open cut at a distance of 300m.

Due to a collapse in 1912 of the open cut, which filled the upper levels of the mine with low grade ore from the footwall of the open cut, it is not possible to observe the southern limit of the vein. Surface prospecting has revealed the main vein with a width of up to 0.6m containing abundant coarse cassiterite. Because of the steep slope some of the veins in the area were never explored.



Similar material crops out, un worked, at the NW Lode and the No. 4 lode.

Based on observations, sampling, RC drilling and chip sampling of old working a length of 250m, with a width of 6m of ore there is a tin reserve figure of 506 250t.

#### West Lode

The west lode is in fact only in its initial stages of exploration. Mookhey perhaps made an over site and misinterpreted the Mt Wells history. Mookhey has misquoted Smith from BHP, in defining the ore production and saying the grade was only 0.22% when in fact it is defined as off limits by the lease holders who wished to retain that area to mine themselves.

Smith quotes a recovered grade of 4%. These workings are partially accessible to a depth of 25m. There is very little surface work in this area, although a vein was followed down to 60m with an unknown amount of ore produced. The block has been drilled between 10 200N to 10 250N (DDH5) and produced ore grade Sn and Cu results at depth.

It is suggested that drill hole W1 between 10200N and 10250N to a depth of 65 m has reserves in the order of 55 000 and W2 shows the ore grade extends to 167m below the drill collar. (Approximately 50 m above the adit 3 as calculated by T Bates)

To the south of the RC holes 4, 5, and 6, a bulldozed cut exposes 1.5m of quartz. Rock chip sampling indicates a narrow 1-2m mineralised zone falls within this cut. Using these figures (125m by 1.5m by 125m) it could indicate another speculative 50 625 t of ore grade material down to level 3 adit.

#### West Lode No.2

This lode is recognised from pot holes and costeans on the surface. There is cassiterite bearing quartz tourmaline cropping out over about 150m with drill intercepts in RC 20 and DDH 4 and 5. This lode appears to be approximately 2m wide and occurs about 90m above adit 3 level. With a strike of 150m and a depth of 90m and a width of 2m we can speculate approximately 72 900t of ore grade material.

#### No.1 Copper Lode

This is known from the stope in adit 3 driver on for about 15m average mine samples were 0.73%Sn and 0.42%Cu%. Average channel samples in northern part of the drive produced 0.58%Sn and 0.98%Cu, while the southern oxidised part of the drive 1.0% Sn. Chalcocite -bombs are scattered through the kaolinised fault zone. A sampled -bomb from this area assayed 63.5% Cu. The lode has been encountered in DDH4 (1.5%W) and DDH7 with 0.03% Sn and 1.37%Cu.

At the surface it is exposed intermittently amongst heavy scree as a quartz vein 40cm wide and strongly mineralised with cassiterite and wolframite. Bates mapped a small stope in Adit 2 where it contains coarse cassiterite. The approximate strike length is 100m with a width of 2m and the surface to adit 3 level is 55m down dip. This gives an approximate 29 700t of ore grade material.

#### No 2 Copper Lode

The No.2 copper lode is known from exposure in Adit 3, Adit 2, on surface exposure in pits and open cuts on both the north and south side of Mt Wells. It can also be traced in most of the DDH holes. The dominance varies from Sn, Cu, and W depending on where the sample is from. It is underexplored and its true extent is unknown. It is a persistent feature and probably has a strike of 250m, a width of 3m, and an average outcrop to adit distance of 90m down dip. This indicates a possible 182 250t of ore grade material.

#### The East Lode

This lode crops out over a distance of 330m of which 275m has minable grades. The lode has extensive surface workings and is mostly worked out at its southern end. This area would be within the final pit out line some 10 000t of low grade ore would remain. IMC Development Company drove test shafts north from the intersection of Adit 3 and the East lode and assays done and described in Mookhey (1971) produced sub economic grades of Sn, Cu and W at the intersection of the lode and Adit3. If the footwall veins and other parallel veins are included in the grade it drops from 1.6% Sn over 1.2m to 0.8% Sn over 3m. It is however easier to maintain 0.8 % grade over 3 m than 1.6% Sn over 1.2m. An approximation of this area is 100m strike with 3m width and 90m depth will give 72 900t of ore grade material.

#### North West Lode

Crops out strongly as a quartz gossan and haematite gossan vein over a length of 100m. The southern gossan zone was drilled (RC9 and 10) and intercepted a fairly good alteration zone it was poorly mineralised and failed to achieve ore grade.

As with all coarse cassiterite, it can tend to form aggregates of mineralisation with a spotty nature. More investigations will need to be done on this lode.

No 4 Lode. Very little information about this lode is available it is approximately 50m long and consists of a stock work of 10 to 30 veins and with a width of 10 to 20 cm. The stock work area is approximately 5 m wide and visible cassiterite and wolfram is contained in this lode.

Using these figures an estimate of 33 750t can be speculated.

These figures are an indication of what ore may exist between Adit level 3 and the surface.

During May 2007 a proposal was made by -Outback Metals Ltd to acquire -Softwood Plantations Pty Ltd. In anticipation of this transaction being completed a decision was made to suspend all exploration activities.

## **6. WORK COMPLETED March 2007- March 2008**

Since the transaction by Outback Metals was proposed in May 2007, an audit of the current resource statements has been made as well as the development of the Company Outback Metals Limited.

The MLNs 196, 197, 198, 199, and 200 have been visited on a number of occasions over the previous term. Site visits were made to identify assets as outlined in the transaction between Softwood and Outback, as well as to familiarize the team with the site and begin planning an exploration program.

The majority of expenditure in time and expenses during 2007-2008 period was to develop a drilling program and to begin implementing the set up of the project. A desktop study of the previous work on the area was carried out when Outback acquired the Mt Wells rights. This study identified the previous exploration, as well as the strike and orientation of the mineralisation. This information was used to develop a 3D model of the site.

Preliminary set up issues were addressed such as access to the site from the Freehold land owner and getting drilling and fuel contracts drawn up. Other concerns that were addressed related to the upkeep of the site such as firebreaks and general issues related to maintaining the site.

A site visit was made and sediment samples taken to identify areas of focus on the Mount Wells Site. These sediments were then used to test a hand held XRF analyser that the Company is considering purchasing to assist with the exploration on the Mt Wells surrounding areas.

The drill program was developed using the 3D model of the site and the known mineralisation. The objective of the initial drill program is to substantiate historical drilling on the site and establish a JORC compliant resource statement.

A Mine Management Plan was submitted to the NTGS on Friday the 16<sup>th</sup> of May and once the plan is approved by the NTGS a drilling programme will begin on the mineral leases in question.

The initial drilling accesses and sites are being used to twin previous holes. The aim of this is to substantiate the integrity of previous drilling. This will be followed by a infill drilling program to identify the extent of the mineralisation and identify any areas of Mt Wells that have not previously been explored.

Outback Metals Limited requests that title to this Mining leases be retained by its subsidiary Softwood Plantations Pty Ltd.

The titles are essential to the exploration programme proposed by Outback and the company looks forward to proceeding with the exploration and development of the mineral leases and the surrounding area which is wholly owned by Softwood Plantations.



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