CENTRAL TASMANIAN TUNGSTEN PTY. LTD.

824001

BRIEF PROJECT OUTLINE
OAKLEIGH CREEK MINE, UPPER FORTH VALLEY
CENTRAL TASMANIA

BY

CENTRAL TASMANIAN TUNGSTEN PTY. LTD.

A

JOINT VENTURE COMPRISING:

BUKA MINERALS N.L.
SEREM (AUSTRALIA) PTY. LTD.
TRIAKO MINES N.L.

JANUARY, 1979 AMG REFERENCE POINTS ADDED M. J. LAWRENCE.

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LOCATION

Central Tasmanian Tungsten Pty. Ltd., a joint venture to exploit the old Mt. Pelion wolframite mine located near Sheffield, Tasmania, is a consortium of French and Australian mining interests, which have considerable expertise and experience. The new mine is to be called *Oakleigh Creek*, and it is 26 km. from Lemonthyme Power Station (see Figure 1).

The minesite is situated on the eastern side of the Upper Forth River Valley, just outside the boundary of the Cradle Mountain-Lake St. Clair National Park. The Pine Forest Moor Lookout on the walking track through the Park is about 5 km. away (see Figure 2). Three leases are held (60M/69, 59M/71, and 60M/71) and a further one has been applied for.

OWNERSHIP

The participants in the joint venture, which will be operated through a trustee company, CENTRAL TASMANIAN TUNGSTEN PTY. LTD., are as follows :-

BUKA MINERALS N.L.	33 1/3%
SEREM (AUSTRALIA) PTY. LTD.	33 1/3%
TRIAKO MINES N.L.	33 1/3%

SEREM (AUSTRALIA) PTY. LTD. is a wholly owned subsidiary of *Société d'Etudes, de Recherches et d'Exploitations Minières* (S.E.R.E.M.) which is itself a wholly owned subsidiary of *Bureau de Recherches Géologiques et Minières* (B.R.G.M.), a mining and geological agency of the French Government. *BUKA MINERALS N.L.* and *TRIAKO MINES N.L.*, part of the *AMDEX GROUP* of companies, are both listed on the Australian Stock Exchange, but the latter also owns 58% of the former company.

Recently, *AQUITAINE (AUSTRALIA AND NEW ZEALAND) LIMITED* aquired 42% of the shares in *Triako*, and has an option to increase this to 60%. The parent company of *Australian Aquitaine* is *Société Nationale Elf Aquitaine* (S.N.E.A.) 92%, with the remainder held by Australian institutions and investors. S.N.E.A. is itself owned by *Enterprise de Recherches et d'Activities Petrolieres* (E.R.A.P. 70%, (a French Government agency) and *Societe Nationale des Petroles d'Aquitaine* (S.N.P.A.).

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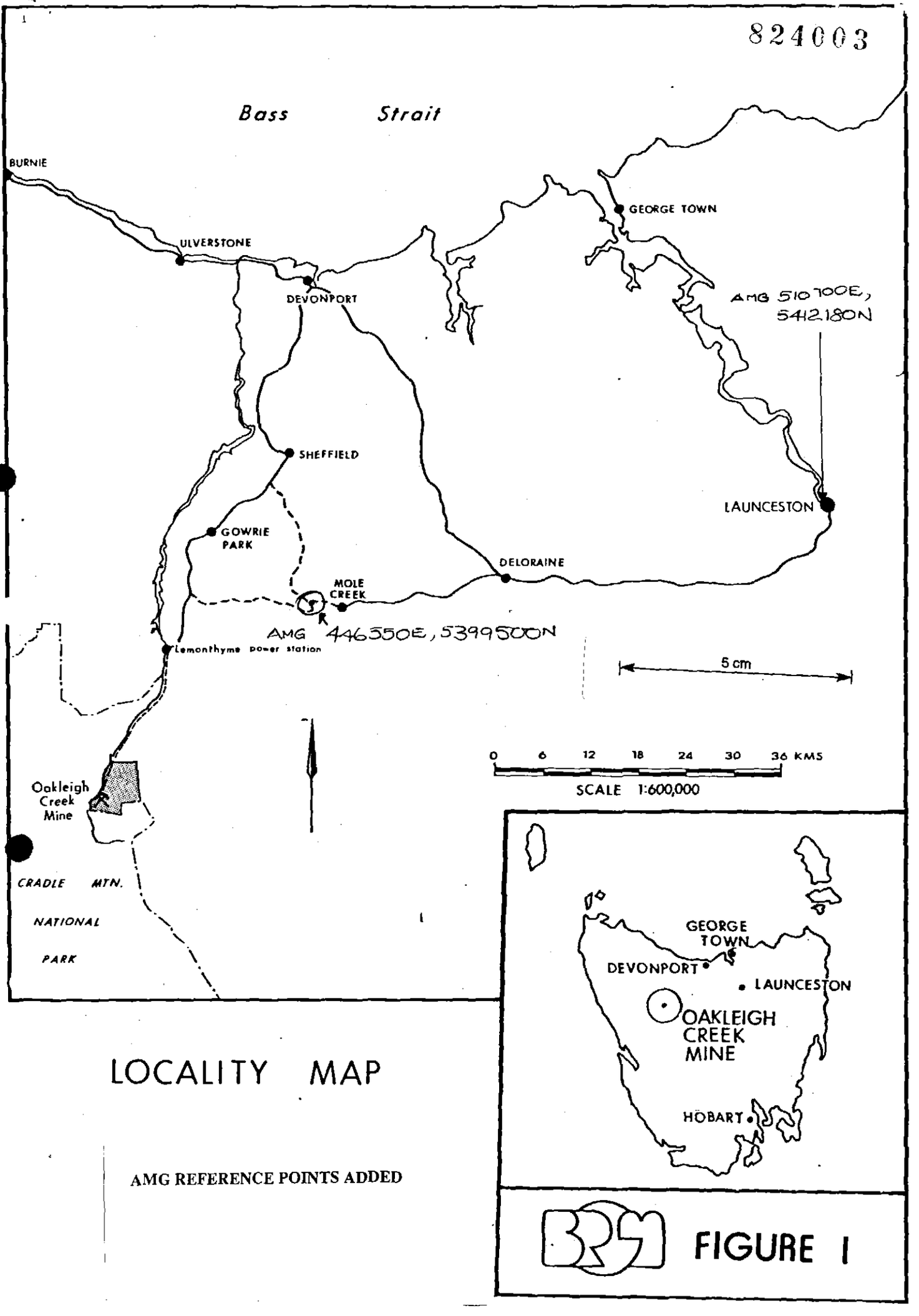
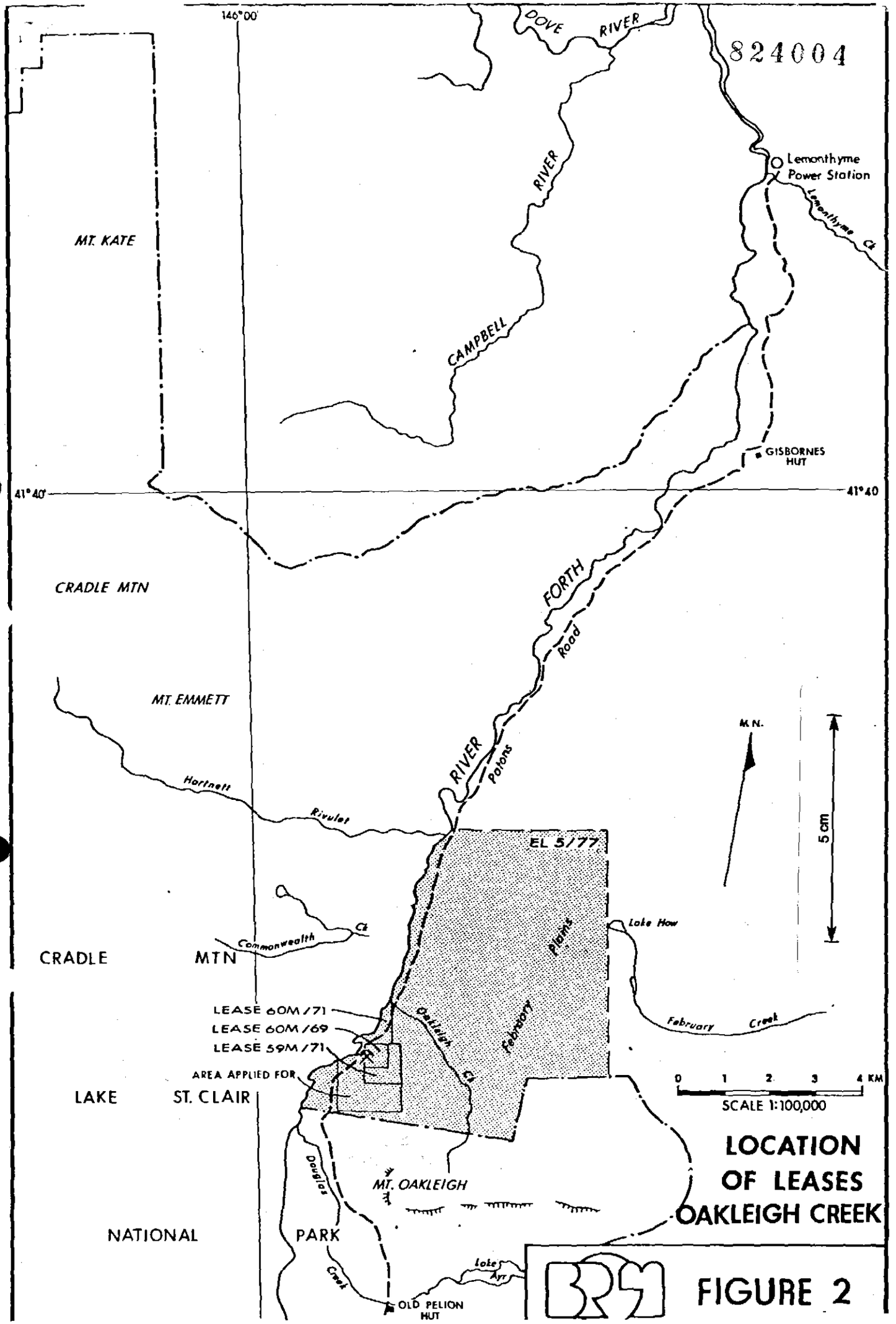


LOCALITY MAP

AMG REFERENCE POINTS ADDED

BRM

FIGURE 1



LOCATION OF LEASES OAKLEIGH CREEK

BRG

FIGURE 2

MINING

In April 1978, mining contractors were engaged to perform a programme of limited mine development to provide additional exposure of the vein to assist in its assessment of ore reserves :

* The 240m level adit was enlarged to 2.44m high x 2.7m wide for its entire original length (154m) and extended another 100m. It is proposed to extend it to the 300m mark by January 1979.

* A new drive (280m level adit) 100m long was made 40m above the original drive, with a section 2.44m x 2.13m. It is to be extended to the 160m mark by January 1979.

* A 40m rise to connect these levels was also completed about 90m from the portal with a section 1.52m x 1.52m.

Mine support facilities include two small sheds (workshop and generator shed) and there has been reconstruction of a surface track on the hillside to gain access to the 280m level. All buildings have been painted olive green to minimise their visual impact.

The enlargement of the surface ore stockpile in front of the original adit with the rock removed from underground is apparent to visitors. All of this dump (5,732 tonnes) will be subsequently removed as it consists of ore which will be the initial supply for the mill. Nevertheless the whole current cleared minesite area only covers 1.29 ha.

Future mining activity will consist of mining above and below the 240m level adit. With the exception of the creation of a maximum of two more portals, all of the mining work will be confined to below ground. This means that noise and disturbance from machinery and blasting will be negligible on the surface. The only physical and visual impact of the mine itself will be the underground entrances.

The likely method of mining will be shrink stoping, which entails breaking the ore with explosives and thence removing it by allowing it to "flow" within the stope to rail trucks beneath. Some small blocks of ore will be left (pillars) to provide support throughout mining and afterwards. However, these will be few as ground conditions are exceptionally good with there being no evidence of high stresses present. A very important consideration is that the vein width does not exceed 0.5m and hence a stoping width of about 1.2m will be used. Blocks of ore will be left,(crown pillars), such that underground openings do not break through to the surface. It may be decided to place some of the waste material from the concentrator in the worked out openings. However, this would only be for the convenience of disposing of such materials as it would not be required for support.

There will be almost no waste rock from development and mining above the 240m adit level. All material removed from underground will be ore and will be taken directly to the concentrator. Development below the 240m adit level will produce some barren rock which will require disposal, but the quantity is unlikely to be large. The daily production of ore is unlikely to be larger than 100 tonnes and it is envisaged that the total underground workforce will not exceed 12 men.

MILLING

The mill design, originally prepared by the local subsidiary of the giant U.S. Dravo Corporation, is rather traditional in approach. The metallurgy of the ore is quite simple and the wolframite concentrates will be produced by gravity methods (jigs and tables) with some upgrading by wet high intensity magnetic separators. No chemical processes are involved; only physical techniques are used. The use of jigs enables rejection of a significant proportion of the feed at a coarse size (+0.5mm -6mm) and this reduces the amount of grinding so that fine tailings are expected to "coarse" by mining standards (+0.01mm, - 0.5mm). Unless material is finer than 0.002mm it is not classified as a clay and therefore the fine tailings here cannot cause turbidity problems in water discharges, particularly since they will be impounded in a dam anyway. This dam will cover around 0.7 ha.

The internationally experienced tailings disposal experts, W.L.P.U. Consultants Pty. Ltd., have advised us that any mine water effluent into the Forth River would not affect the ecology through toxicity nor the emission of non-filtrable solids (turbidity). In fact, tailings disposal is facilitated by the absence of chemical processes in the ore treatment and the uncomplicated and relatively unreactive ore mineralogy. Even the country rock, a hard, durable quartzite, will pose no problems as it will not readily breakdown and make erosion and landslips a visual problem.

INFRASTRUCTURE

The majority of workers will have permanent accomodation at Sheffield or other towns in the area, but there will be portable housing on site for single men. The campsite will occupy only 0.32 ha and transportable accomodation, dining/ ablution and recreational units will be used. Normal septic toilet facilities will be provided and adequate protection of the Forth River from these effects has been provided. Patons Road, from Lemonthyme Power Station, will remain the only mine access and no other roads should need to be constructed. Power will be generated on site.

Facilities to assist bona fide bushwalkers have been provided and an attractively located access walkway has been constructed along the Forth River, from Oakleigh Creek past the minesite. Informative sign posts have been erected in co-operatio with the National Parks and Wildlife Service and a cleared area has been constructed as a car park.

PHOTO 2 : View of Oakleigh Creek Minesite from Pine Forest Moor Lookout Looking North-East.

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PHOTO 3 : Close-up View of Oakleigh Creek Minesite.

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PHOTO 10 : *Oakleigh Creek Gate - Entrance to Leases.*

PHOTO 11 : *General Sign Layout at Oakleigh Creek Gate.*

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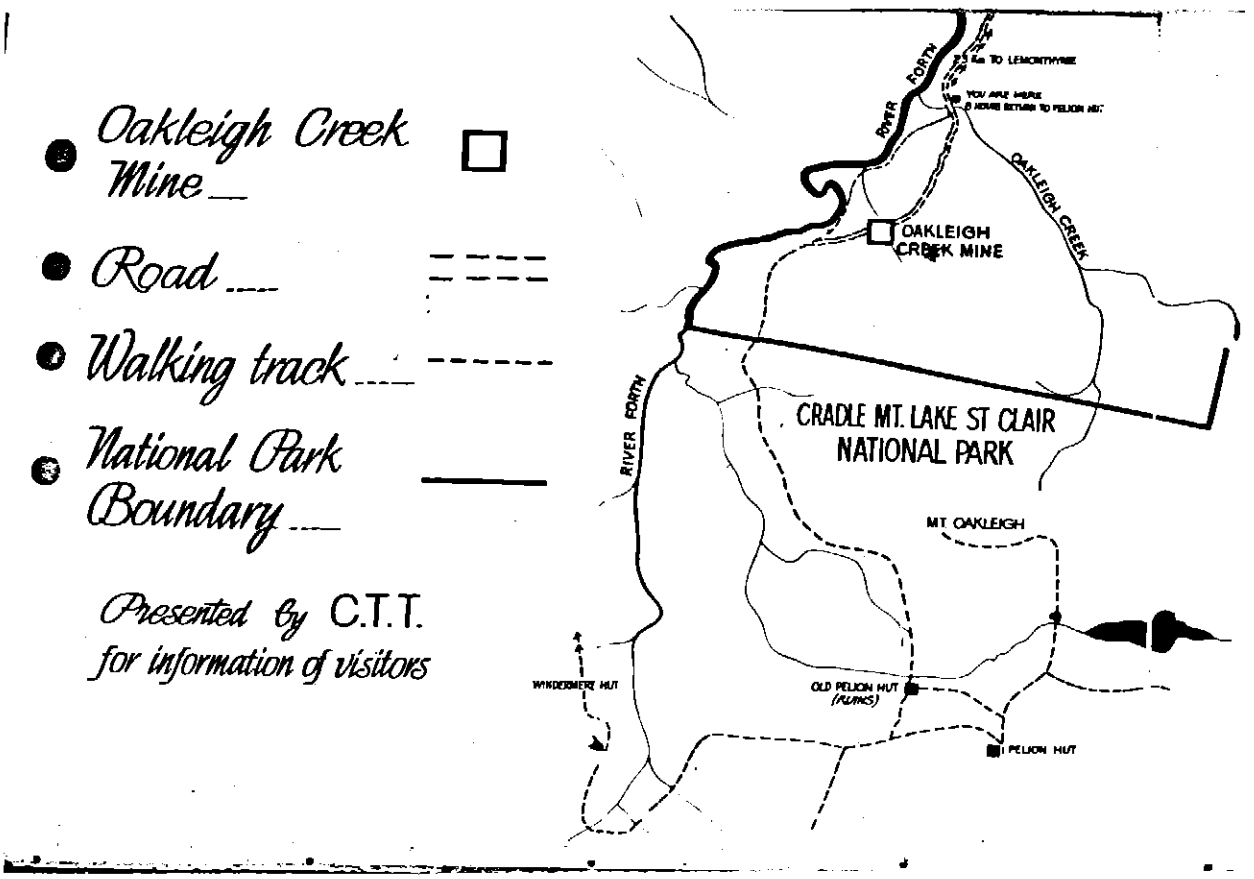

PHOTO 12 : Sign-Map at Oakleigh Creek Gate Showing Walking Track.

The history of mining development in this region commenced with the discovery of copper between Mount Pelion and Mount Oakleigh in 1892. However, this deposit was not developed until about 1916 when a company called Mt. Pelion Copper Mines mined it briefly. Before this time the area was deserted except for hunters, shepherds and stock-owners who used the plateau country for summer pastures. In 1916, Patrick Hartnett discovered wolfram in quartz veins while working on the road to the copper mine. Mt. Pelion Copper Mines worked the main vein briefly about 1919. An attempt was made to reopen the mine in 1970. Central Tasmanian Tungsten purchased the mine from Louisa Mining Corporation in 1977 and is now developing the mine. It will produce wolfram, an ore of Tungsten, which is used in steel hardening....

PHOTO 13 : Text on Sign at Oakleigh Creek Gate describing Area's History.

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PHOTO 14 : *Commencement of Walking Track Constructed by Central Tasmanian Tungsten Pty. Ltd.*

PHOTO 15 : *Walking Track Improvements Constructed by Central Tasmanian Tungsten Pty. Ltd.*

CLOSE UP VIEW OF MINESITE SHOWING PLANT LAYOUT