ML 14M / 2004

ENDURANCE PROJECT

NORTH EAST TASMANIA

MINE PLAN

24TH MARCH 2005

VAN DIEMAN MINES PTY LIMITED 24TH March 2005

PREPARED BY:
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Exploration and Development

SUMMARY

The following Mine Plan is submitted to support the application dated 9th December 2004. It should be noted that the applicants intend, as part of the statutory requirement to complete a full Environmental Impact Assessment (EIA) of the project, to include in that assessment a fully detailed 'Mine Plan".

In summary this is an alluvial mining operation plan which involves:

- Dewatering of the past mine pit and weiring of that water through an acid remediation circuit;
- Clearing of surface vegetation and mulching of part of that vegetation stockpile for later reclamation works;
- Pre-stripping of topsoil to special stockpiles;
- Stripping of the first 5 to 7 metres of overburden by bulldozer to beside-cut stockpiles;
- Removal of balance of overburden to the same stockpiles;
- Removal of the underlying ore to the alluvial treatment plant;
- Progressive rehabilitation immediately behind mining involving return of overburden to the cut, re-contouring, return of topsoil and mulching.
- Reclaimed areas will be replanted with local species as required.
- Progressive moving of treatment plant to keep haulage imprint small with draining of tailings areas and reclamation and replanting.

It is envisaged that by using progressive rehabilitation of worked areas the overall imprint of the operation will be relatively small. Short haulage distances from the mine to the treatment plant will reduce the visual impact of roads and earthworks and will reduce dust pollution associated with vehicle movement.

This current plan set out in the following text may require amendment as issues raised in the EIA are addressed.

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1 INTRODUCTION

The mining operation to be conducted by the applicant involves the progressive development of a deeply buried tin / sapphire bearing alluvial channel by open cut mining methods involving conventional earthmoving machinery; bulldozers, excavators and trucks. It is proposed that reclamation of the site will be conducted on an ongoing basis immediately behind the open cut extraction of the ore and that progressive moving of the treatment plant will be carried out to limit the overall footprint of the operation.

The Environmental Impact Assessment (EIA) currently being conducted by the applicant is following guidelines as supplied by DPIWE and will, in particular, address rehabilitation of some of the previous mine disturbance, remediation of the current acid mine water problems and rehabilitation of the site to as near original conditions as is practicable. To this end the applicant has already held discussions with several parties in relation to establishing a local nursery to provide plant species for revegetation. In addition the applicant and has commenced detailed studies of the environment, specifically:

- Flora and fauna studies;
- Aboriginal Heritage studies;
- Water use; and
- Baseline water quality testing.

The applicant envisages that as a result of the EIA studies it may be necessary to modify the Mine Plan set out in the following text. Such alteration would not affect the actual mining techniques to be employed but would most likely involve matters of water storage, water use and mine water discharge. The applicant is aware of issues involving acid water discharge at this location and as part of their study is addressing this issue in detail.

2 LOCATION, ACCESS AND LAND USE

The operation to be known as **"The Endurance Mine"** is part of a larger project, the 'Central Ringarooma Project', which subsequently, after mining has been completed at Endurance, will involve transfer of plant and equipment to the nearby Pioneer Mine. The Endurance deposit is located along the southern edge of the Mt Cameron granite massif approximately 9 km southeast of the Township of Gladstone and 7 km north of the Township of Pioneer. The centroid of the area applied for is located at approximately 578,000m East and 5,459,000 m north AMG. See Figure 1.

In the application dated 9th December 2004 access to the tenement was to be via the current access track, an old mine road that provided access to the abandoned BMI Mining treatment plant site at the western end of Blue Lake. The access road leaves the Pioneer – Gladstone road at a point approximately 580,800mE, 5,458,000 mN. The access road crosses a section of Private Land, not subject of this application. It is proposed to deviate the access road around that land parcel as indicated on Figure 1.

Recent inspection of the track indicates that, in its present state, it will be unsuitable for heavy vehicle access and thus it is proposed to upgrade access by widening and provision of new surface drainage. Within the tenement new access tracks will be developed along each side of the westerly advancing open cut. Existing tracks will be used for access elsewhere within the tenement.

Current land tenure is considered to be "Crown Land" forming part of the Mt Cameron Regional Reserve. An area of 9 hectares has been excised from the application, this area is Private Property, Title Reference #23045/1, see Figure 1.

The nearest permanent (perennial) watercourse to the project area is the Ringarooma River which at its closest point lies approximately 2.75 km east of the planned mining operation. Ruby Creek in the south of the area applied for is a non-perennial stream and is located approximately 1.5 km west of the planned mining cut.

A large area of sand tailings from a previous mining operation occurs south of the Blue Lake and the planned mine cut.

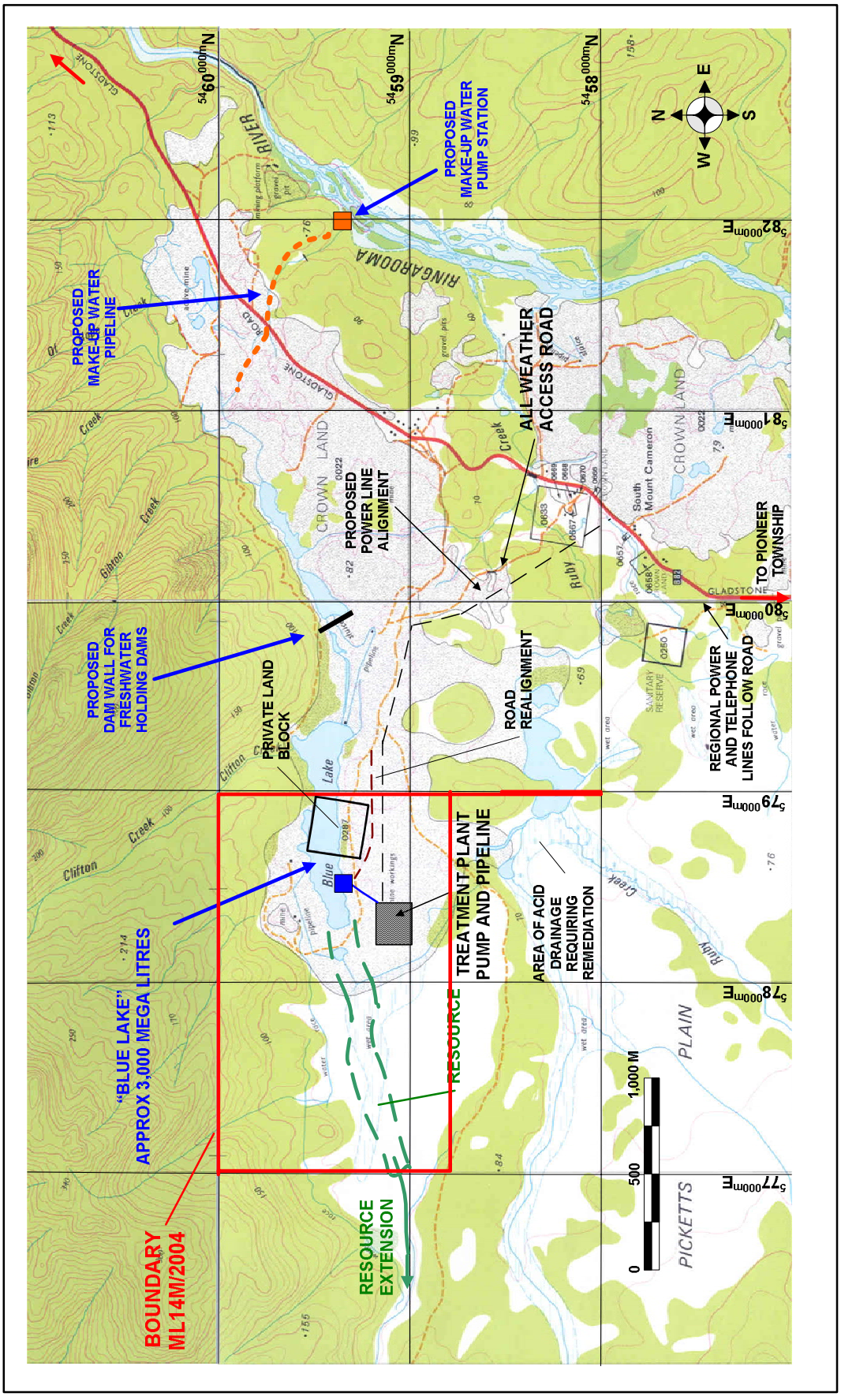


FIGURE 1 - LOCATION AND ACCESS PLAN

The nearest inhabitants are located at South Mt Cameron township approximately 2.5 km south east of the proposed operation. The operation cannot be cannot be sighted from the Gladstone to Pioneer road and given the thick vegetation screen no disturbance from sound is envisaged.

3 THE GEOLOGICAL SETTING

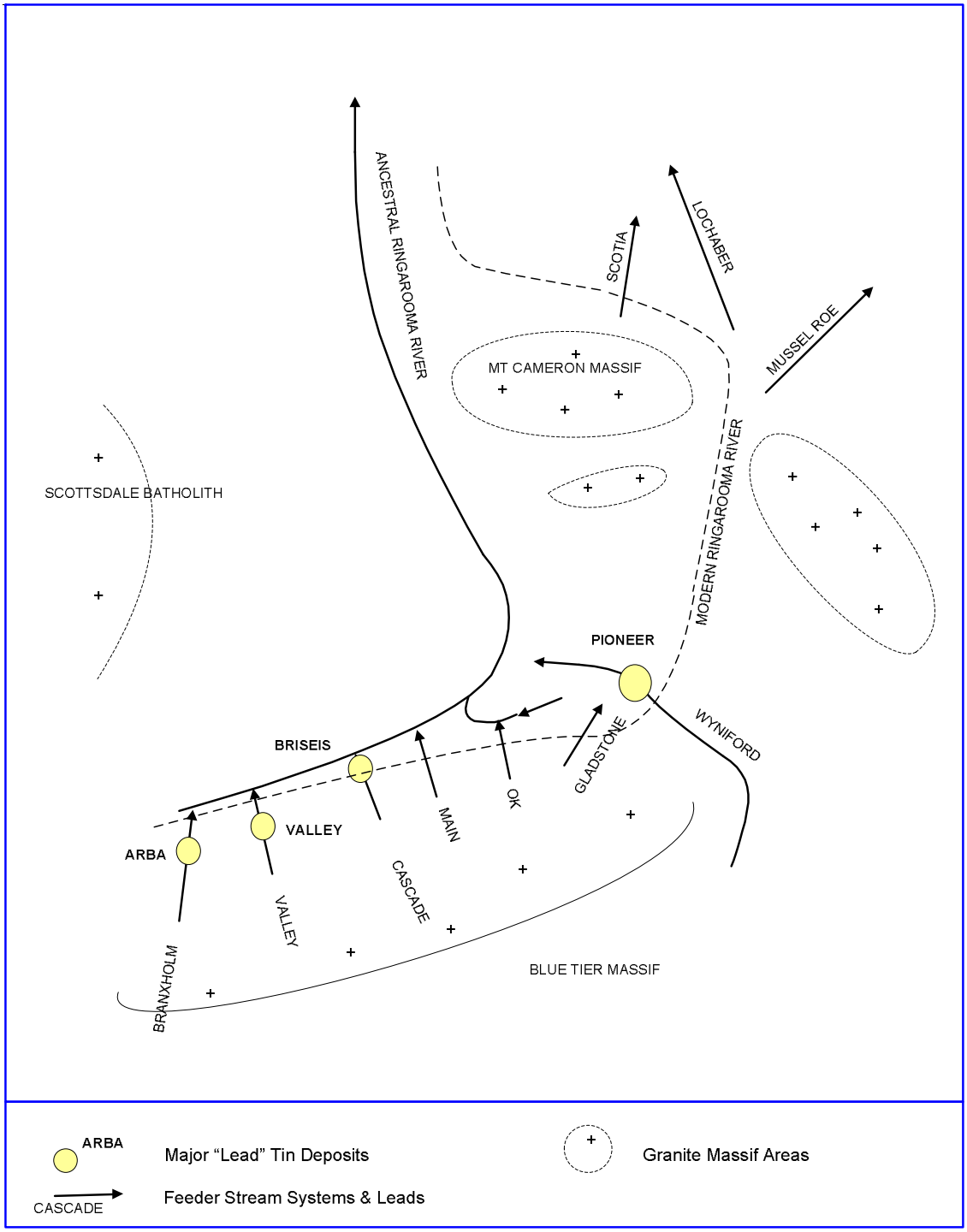
Basement studies indicate that the Ringarooma River, the main regional river system ran eastwards and then northwards through the area occupied by the present Boobyalla River. The river was fed by a number of major tributaries, the Branxholm / Black Creek, Valley Creek, Cascade River, Main Creek, Weld River, OK Creek, Gladstone Creek and the Wyniford River.

During this period the tin bearing Blue Tier massif formed a major elevated mountainous area south of the Ringarooma River basin. Streams draining this massif were probably deeply dissected and high energy systems that contributed a major heavy mineral rich sediment load into the basin.

Sharp changes in gradient at the junction of these systems with the basin, resulted in a reduction in stream energy, and thus assisted the development of deeply entrenched, major tin bearing alluvial deposits. Basement topographic levels along the ancestral channel would seem to indicate that these basinal deposits were probably elevated above the levels of the main river. Filling of these basins resulted in spilling of tin rich sediments further north to the main channel of the Ringarooma River.

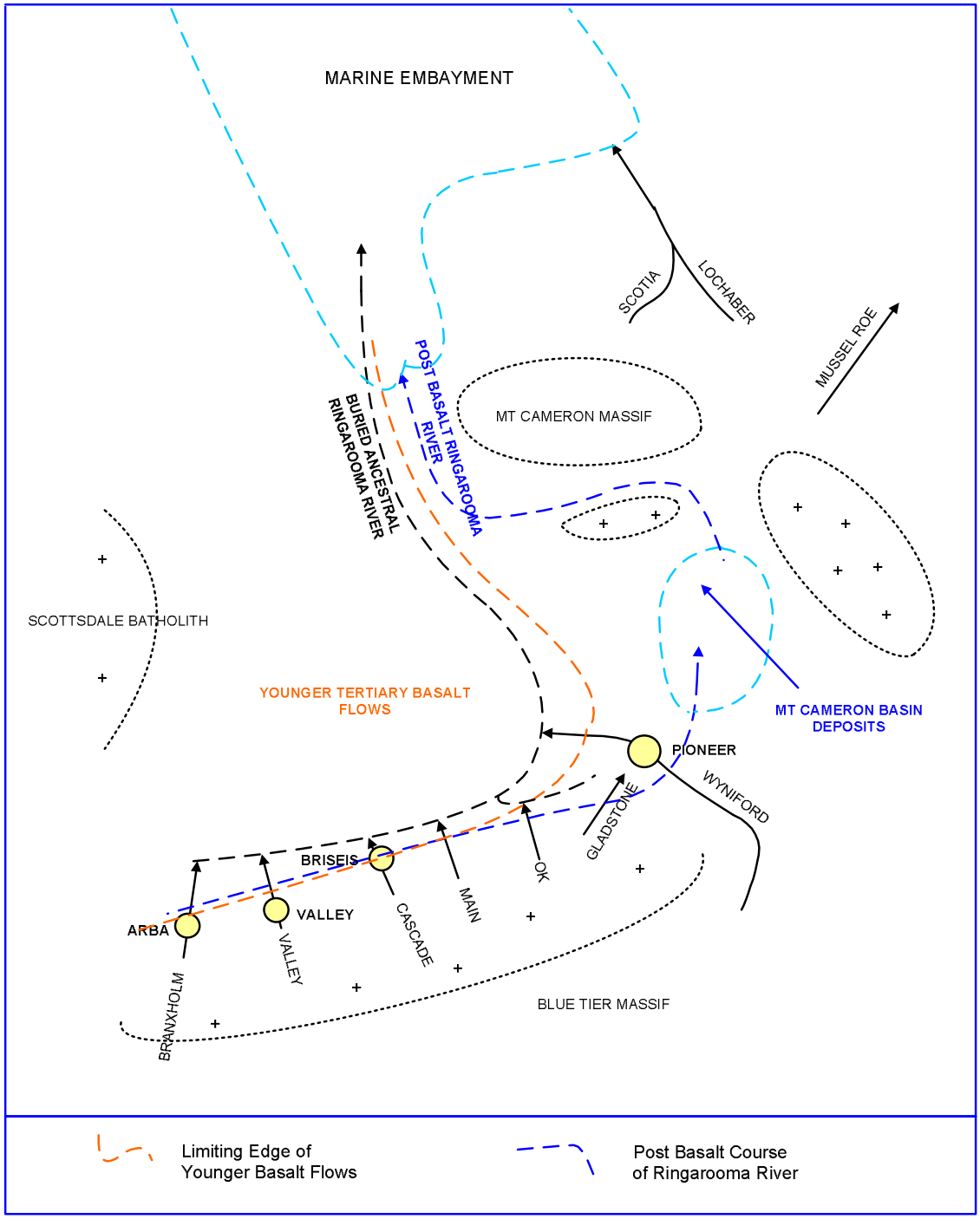
About 16 Ma the Ringarooma river valley was partly flooded by the Younger Basaltic flows. This pushed the river to the south against the granite massif and in places, below Derby, the river was forced to incise its course into granitic basement rocks. In turn this isolated the paleo-Ringarooma River and its tin bearing basinal deposits under thick basaltic flows.

Deposits such as Arba, Valley, Briseis and Pioneer were worked where exposed along the edge of the basalt flows however many were not fully exploited because of thick basaltic cover.



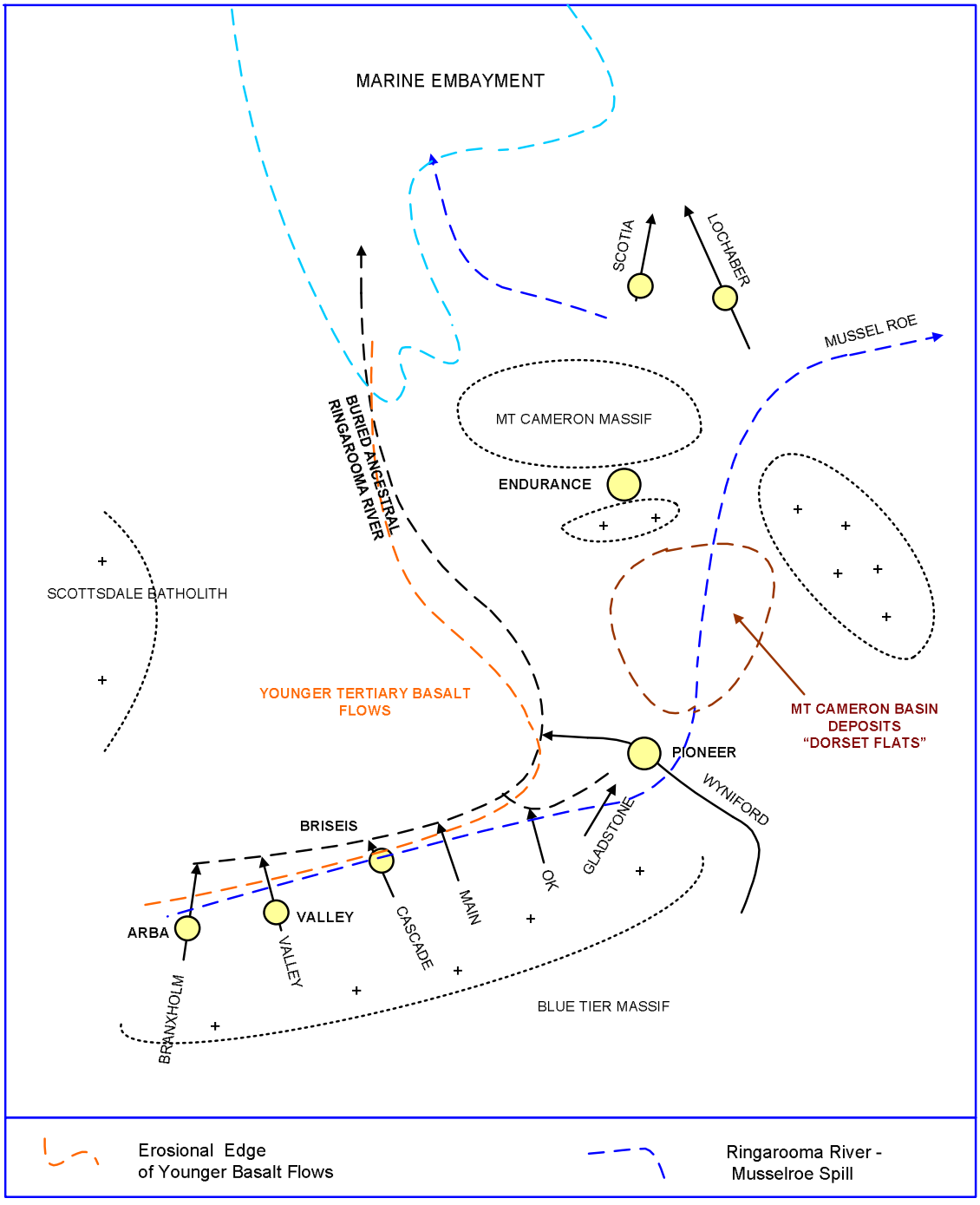
STAGE 1
PRE-YOUNGER BASALT GEOMORPHOLOGY
DEPOSITION OF ZIRCOSPILIC TERTIARY SEDIMENTS

FIGURE 2 - STAGE 1 OF REGIONAL GEOLOGICAL DEVELOPMENT



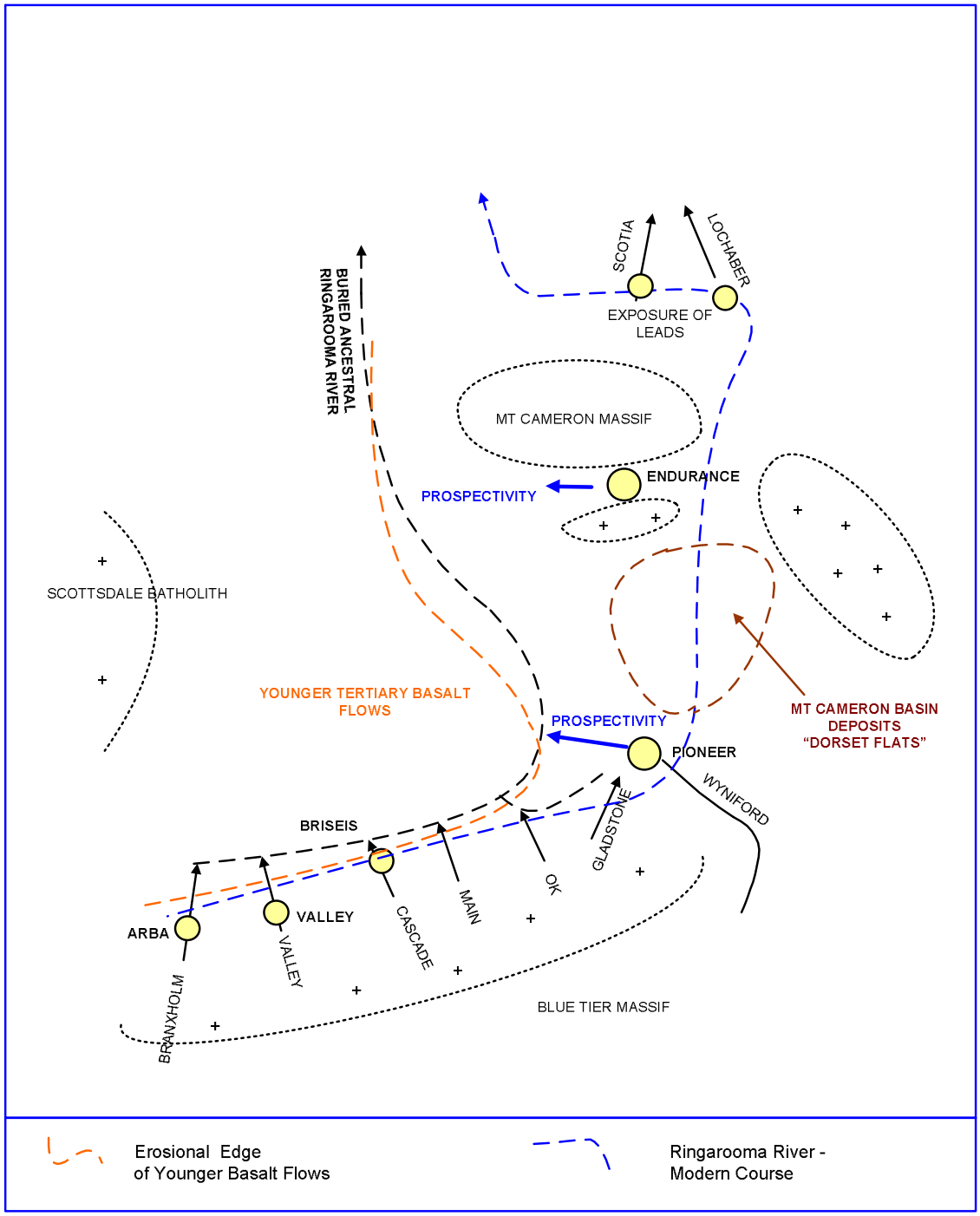
STAGE 2
PERIOD OF YOUNGER BASALT VOLCANISM
BURIAL OF ANCESTRAL RINGAROOMA RIVER

FIGURE 3 - STAGE 2 OF REGIONAL GEOLOGICAL DEVELOPMENT



STAGE 3
MUSSELROE SPILL
RINGAROOMA RIVER DIVERSION

FIGURE 4 - STAGE 3 OF REGIONAL GEOLOGICAL DEVELOPMENT



STAGE 4
RINGAROOMA RIVER CAPTURE
FLOW DIVERSION TO RINGAROOMA EMBAYMENT

FIGURE 5 - STAGE 4 OF REGIONAL GEOLOGICAL DEVELOPMENT

3.1 THE ENDURANCE PROJECT

The first deposits to be worked in this area were the elevated shallow deposits along the edge of the Mt Cameron massif, probably the Clifton Creek deposits. These deposits are reported to have contained ground averaging 2,000 to 3,000 g/m^3 of tin. As this shallow ground became worked out, mining shifted to the deeper ground. This move represented the first exploitation of the shallow but very high grade (7,000 g/m^3) headwater section of the main lead where basement was at around 10 metres maximum. This area is located just west of the Gladstone – Pioneer road. (Figure 6, Loc 7).

The geological and genetic history of this deposit is dominated by the emplacement of the Younger Basalts down the palaeo-channel of the Ringarooma River.

With much of the north and north westward flow from the Blue Tier being diverted to the east and the previous drainage through the Boobyalla / Palaeo-Ringarooma becoming restricted if not halted, all the Blue Tier sediment load was directed to the Mt Cameron Basin, a broad flat lying area located between the Mt Cameron massif and the edge of the Blue Tier. Initially flow was probably along the southern section of the palaeo-channel marked in blue on the geological map although the presence of ferricretes and silcretes in this area suggests that this channel was also filled by basaltic material.

The Ringarooma River was pushed to the southern edge of this area along and partly within the granite massif discharging its sediment load into the area now called Dorset Flats. Major deviations in the course of the River such as at Loc 3, Figure 6, were probably caused as a result of Tertiary faulting and / or the presence of more resistant granitic rocks. Similar diversions in drainage are seen in Ruby Creek at Loc 4, Figure 6.

As sediment load increased and the basin filled initial spillage was across a low ridge at Loc 5, Figure 6, and into a narrow valley roughly conforming with the current valley of the Ringarooma River, and toward Loc 6 , Figure 6.

High granite basement at Loc 6, Figure 6 forced the stream to divert westward along and immediately adjacent to the southern flank of Mt Cameron. The geomorphology of this valley was controlled by a system of north-west to south-east trending Tertiary faults. Without exception these appear to have downthrown and northerly displaced western blocks.

The Endurance lead initially developed as a relatively narrow, very active stream, depositing high grade tin bearing basal gravels onto a highly decomposed granitic basement. The stream gradient profile was in the main west trending at shallow angles, locally faulting caused major diversions to the system and resulted in restrictions and sharp changes to that gradient.

Where these bends or diversions occurred they caused some damming of the stream, above the diversions the stream usually occupied a broad valley, below it usually discharged into a deep high grade pool that gradually opened out as the gradient lessened and the stream slowed down.

The unexploited section of the resource typifies this scenario. A broad shallow valley occupies the section east of the Tertiary fault, grades diminish slightly east to west and a small island of barren wash occurs immediately east of the fault where the stream system appears to become somewhat braided. West of the fault the tin bearing sequence thickens and the valley narrows. High grade tin bearing gravels were deposited in a deep pool immediately adjacent to, and downstream of the fault.

Further west the valley starts to widen, the sequence thins and the grades commence to drop. Past water bore drilling, Loc's 1 and Loc 2's , Figure 6indicate the Lead continues, depth to basement at Loc 1 is reported to be 54.9 metres. The presence of the Lead is established by a shallow result (10.5 metres) from Loc 2 bore just to the south of Loc 1. A narrowing of the lead to the west as is reflected by current topography is thus not the case.

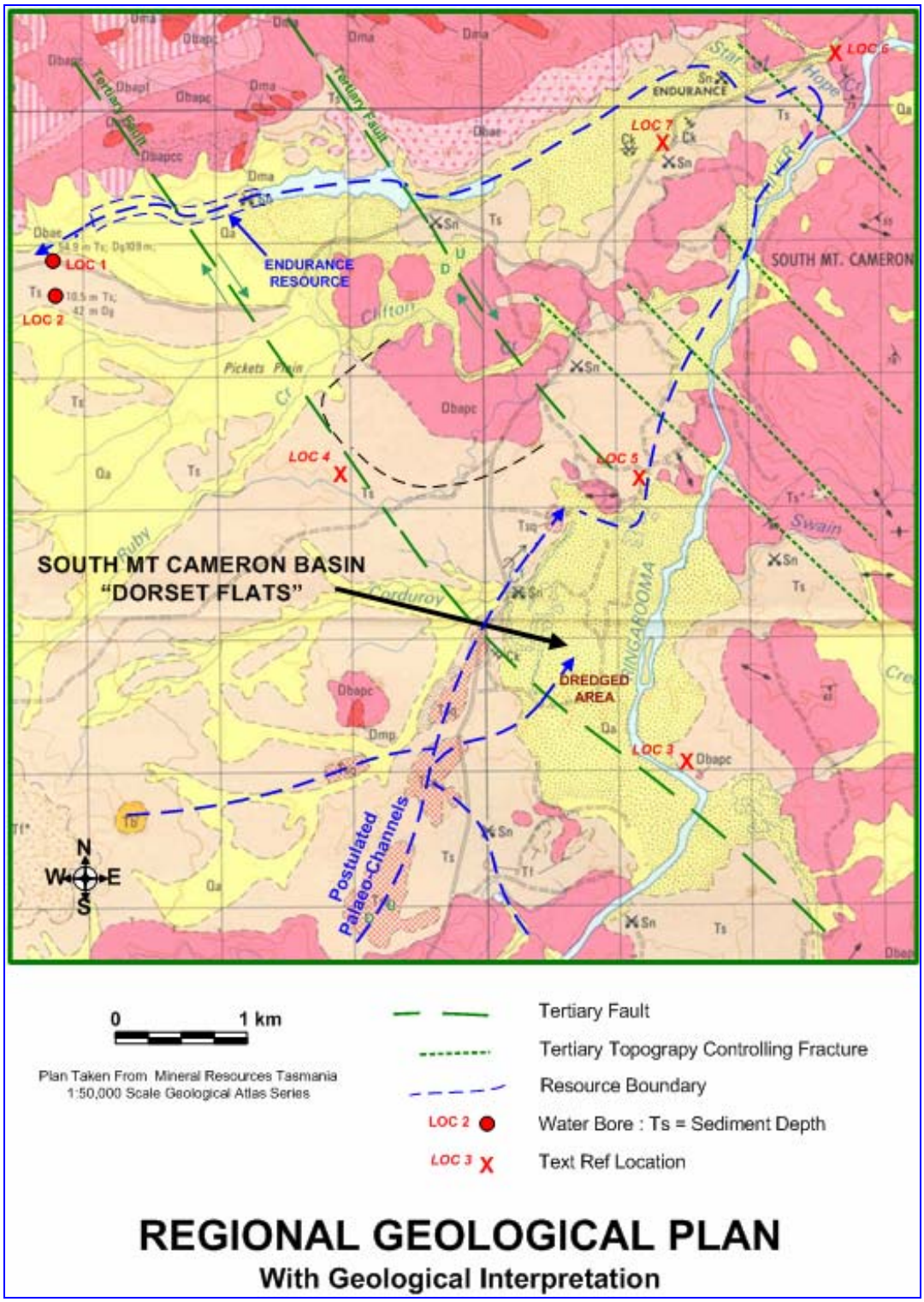


FIGURE 6 - GEOLOGICAL PLAN OF THE ENDURANCE AREA

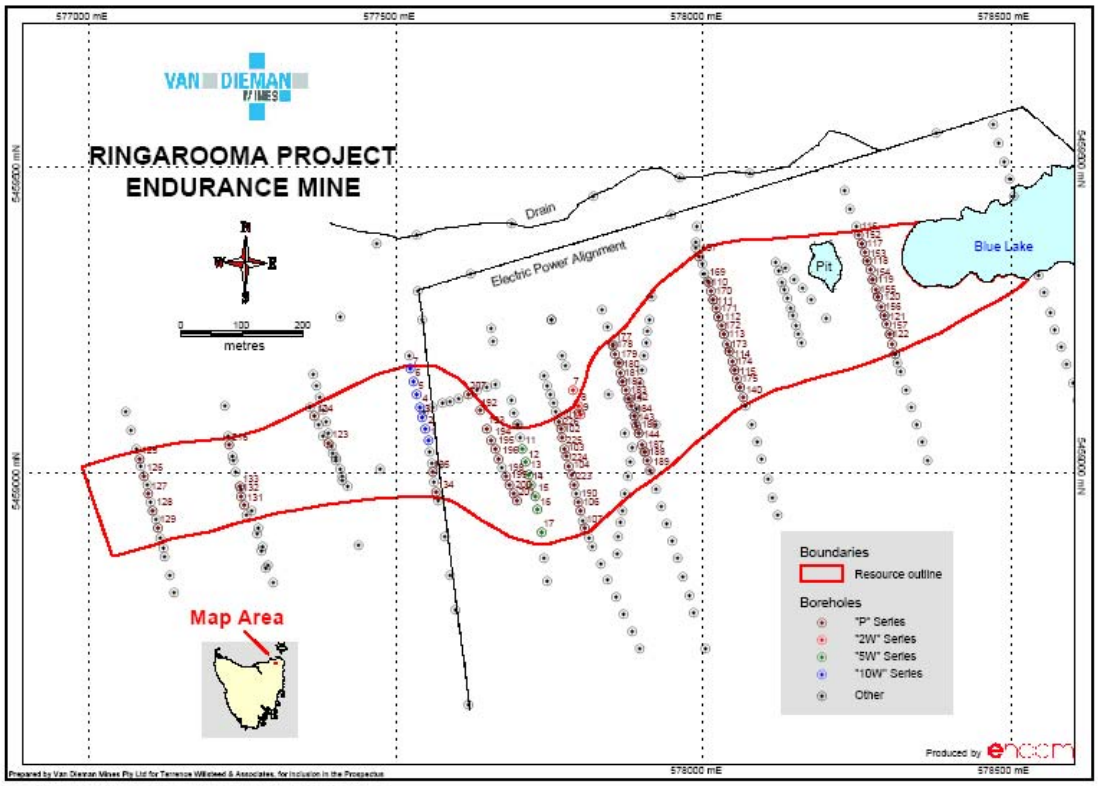


FIGURE 7 - THE ENDURANCE LEAD

Prospective additional resources at Endurance are contained in three zones, specifically:

- Areas along the northern edge of the deposit between the main lead and the Mt Cameron granite massif where insufficient drilling has been conducted to accurately define the limits of the deposit. Deposits in these areas may include local high grade shed from the tin bearing granites of the massif;
- Areas along the southern edge where insufficient drilling has been conducted to accurately define the limits of the deposit; and
- The western extension where it is postulated that the system deepens and widens, that is an area that mirrors the other sections of the resource with respect to grade and size.

4 THE PROPOSED MINING OPERATION

The applicant intends to develop the operation as an open cut quarry with ore being treated at site using conventional gravity circuitry. The ore is to be derived from a tin / sapphire / gold bearing buried alluvial channel, detail of which will be provided in the geological assessment section of the EIA.

Ore is to be treated at a rate of 300 cubic metres per hour on a 6 day / 10hour shift per day basis. It is envisaged that the annual operation will be in the order of 2,500 hours. Annual production from the operation is estimated to be approximately 1,000 tonnes of 74% SnO_2 tin concentrate, 1,500 kilos of sapphire and 15 kilos of gold dore.

It is proposed to commence mining in the eastern section of the Lead immediately adjacent to the old BMI Mining open cut, now occupied by the Blue Lake. Mining will move progressively westward and at some time within the second year of operation drilling of the western resource extension area will commence.

The Mine Plan is presented here as a series of progressive stages, each stage being depicted on the accompanying figures.

STAGE 1: PRE-MINING SITE PREPARATION:

a. ACCESS:

This stage will commence with the forming up and realignment of the current access road from the Gladstone to Pioneer road to the treatment plant and site offices, as set out in Figure 1 and 8. Realignment of the road around the block of Private Land to be carried out as indicated. Any gravel required to surface this road will be derived from old tailings heaps located at the abandoned BMI Mine site. As the road occupies slightly elevated ground care will be taken to provide adequate drainage and run-off settlement ponds. Drains will be stone lined to avoid unnecessary erosion and in particular attention will be given to the existing bridge over Ruby Creek and a culvert located approximately 700 metres along the track from the main road.

Recent experience suggests that casual use of sand tails heaps by trail bike riders may pose a public safety issue. It is proposed that a fence will be erected around the boundary of the tenement and access for other than official use denied. Access will be secured by a locked gates as indicated on Figure 8 and the necessary public warnings and safety signage erected in highly visible locations at the point of entry.

Further track work will be required to access the pump site on the Ringarooma River and along the pipeline from that site to the discharge point as indicated on the plan. Existing tracks will be cleared and widened, repairs carried out as necessary. New tracks may be required to access freshwater dams and pipeline right of ways. See Figure 8.

b. TAILINGS AND FRESHWATER DAMS:

The company is mindful of the existing acid water drainage problems caused by drainage from the old sand tailings heaps. Baseline water quality testing has been commenced and the results of this work along with previous Departmental studies will be addressed in the EIA study (currently underway).

It is assumed that any discharge waters will be acidic and will require some form of treatment prior to release. The following procedure is to be adopted prior to start-up:

- Pipeline access it to be established to the Ringarooma River and a pipeline from that pump site laid down to the head of the small creek at approximately 581150mE , 5459900mN. Water from that pipeline will be directed downstream to two dams established above a new dam wall at location 579900mE, 5459400mN. Figure 1 and 8;
- A pontoon floated pump will be located on the Blue Lake as shown on Figure 8 and the lake pumped into a limestone acid remediation drain prior to testing and discharge into Ruby Creek; and

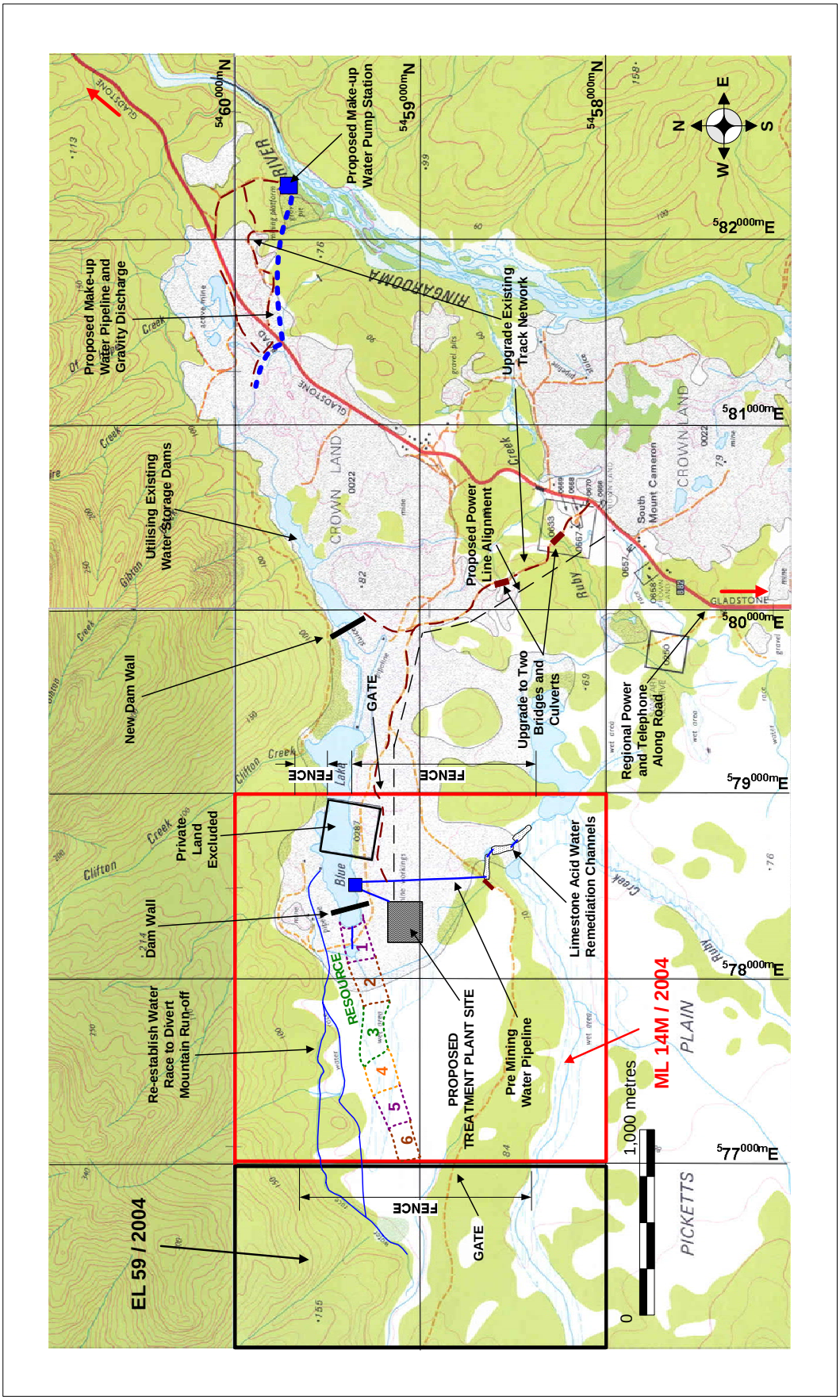


FIGURE 8 - PRE MINING DEVELOPMENT WORKS

- It is proposed to pump the Blue Lake as low as possible to allow a wall to be constructed as shown on Figure 8. This wall is aimed at reducing water flow into the mine cut by reducing hydraulic pressure through the basal gravel horizons.

It is proposed to use the old Blue Lake as a tailings pond and the new dams for plant makeup water. Some top-up from the Ringarooma River may be required during dry periods however the applicant is mindful of local water use for grazing and would undertake to keep such use at a minimum.

c. GENERAL SITE DRAINAGE

The Mt Cameron granitic massif is recognized as a significant source of surface run-of in periods of high rainfall. The establishment of the dam wall at the western end of the Blue Lake will assist in protecting the working open cut from heavy surface run-off, any run-off accumulating in the lake will be pumped to the Ruby Creek site as indicated on Figure 8.

In addition the company intends to re-establish the old water races along the foot of the mountain directing flow in those races east and west away from the resource area as indicated.

c. TREATMENT PLANT SITE:

It is proposed to establish the treatment plant and an ore stockpile at the location indicated on Figure 8. As the haul distance from the western end of the deposit is only 1.2 km no treatment plant move is envisaged. A plant move may be required if test work extends the resource to the west. In that instance the plant would only be moved some 500 metres west of the first location.

d. SITE OFFICES AND WORKSHOP:

In line with the concept of keeping the working footprint small site infrastructure will be kept to a minimum and will comprise:

- Site Office, Parts Stores and First Aid Room;

- Bunded Fuel Storage;
- Workshop (Containerised) and 'hard stand' for heavy vehicles;

The above will all be constructed around used shipping containers that can be progressively moved as the operation moves northwards along the lead.

STAGE 2 – THE MINING OPERATION

The base of the 'Lead' deepens progressively westward from the old BMI workings where it is at approximately 20 metres to about 40 metres in depth. Overburden stripping ratios are approximately 5:1 and previous operations indicate that walls stand at a batter of around 60^{O}. As mining periods in any one mine cut will be short, that is, no longer than one month, it is proposed to establish a single sloped batter at an angle of 60^{O}.

Mining will be carried out by creating open cuts as a series of progressive slots, see Figures 11 and 13. As mining advances and ore is extracted rehabilitation will immediately follow the vacating of worked pits.

Specifically the mine plan will proceed as follows:

- Pumping of the small lake in the eastern end of the resource into the Blue Lake and establishment of westward flowing drains to reduce surface water;
- Removal of vegetation and mulching of that vegetation to heaps;
- Removal (progressive) of topsoil to discrete stockpiles;
- Removal (progressive) of the top 5 metres of overburden by bulldozer to pitside stockpiles. These stockpiles will be located so as to not cover or contaminate topsoil heaps and exert pressure on the pit wall batters;
- Removal (progressive) of the remaining overburden by excavator and trucks to pitside stockpiles;
- Removal of alluvial ore to stockpile and / or directly to the treatment plant feed bin;

- Progressive reclamation of vacated mining pits by replacement of overburden stockpiles to the open cuts, a period allowed for subsidence, replacement of surface soils, mulching of disturbed areas and replanting as necessary.

Figures 10 to 15 illustrate this staged operation. This mining technique should ensure that mined areas remain open for no more than three months at any one time.

The mining fleet envisaged for this operation will comprise;

- D11 bulldozer;
- Hitachi 1800 excavator (Overburden removal);
- Hitachi 1250 excavator (Ore removal);
- CAT 773 or 775 Dump Trucks (Ore and Overburden removal)
- CAT 769 Water Cart and 14E Grader (Road maintenance and dust suppression); and
- CAT 966 Loader (Stockpile and general works)

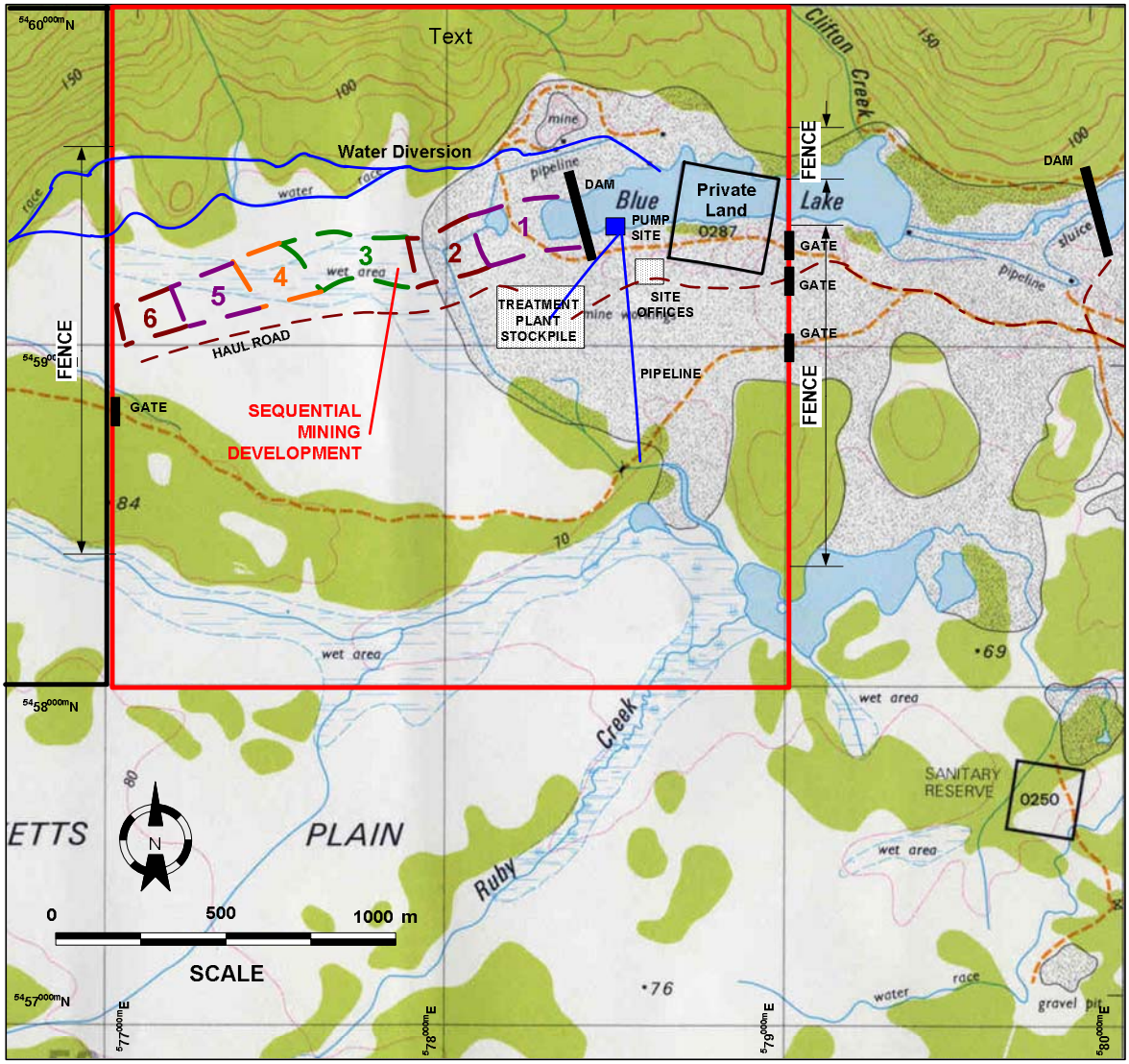


FIGURE 9 - MINE LAYOUT AT COMMENCEMENT POINT

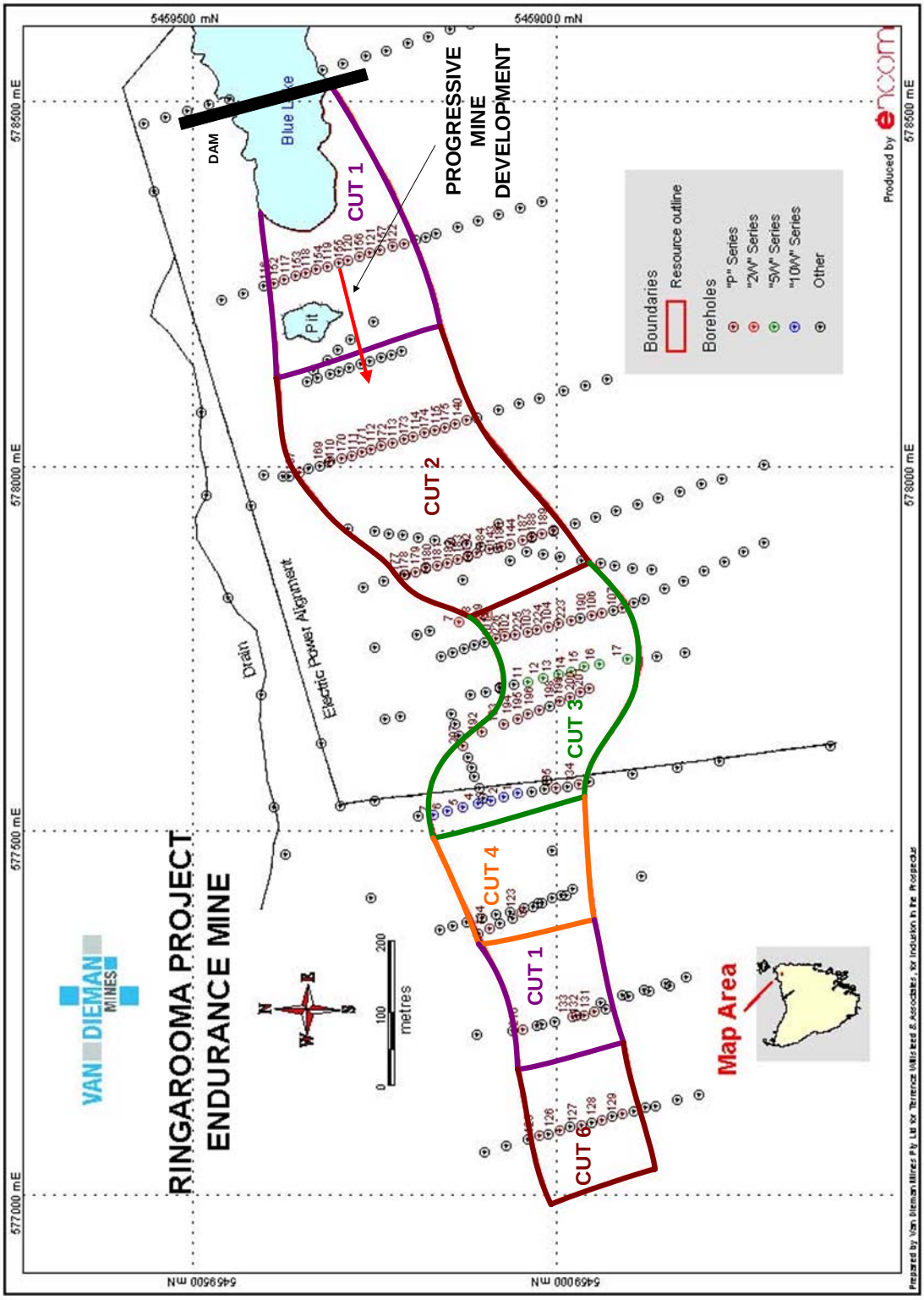


FIGURE 10 - SEQUENTIAL MINING PLAN

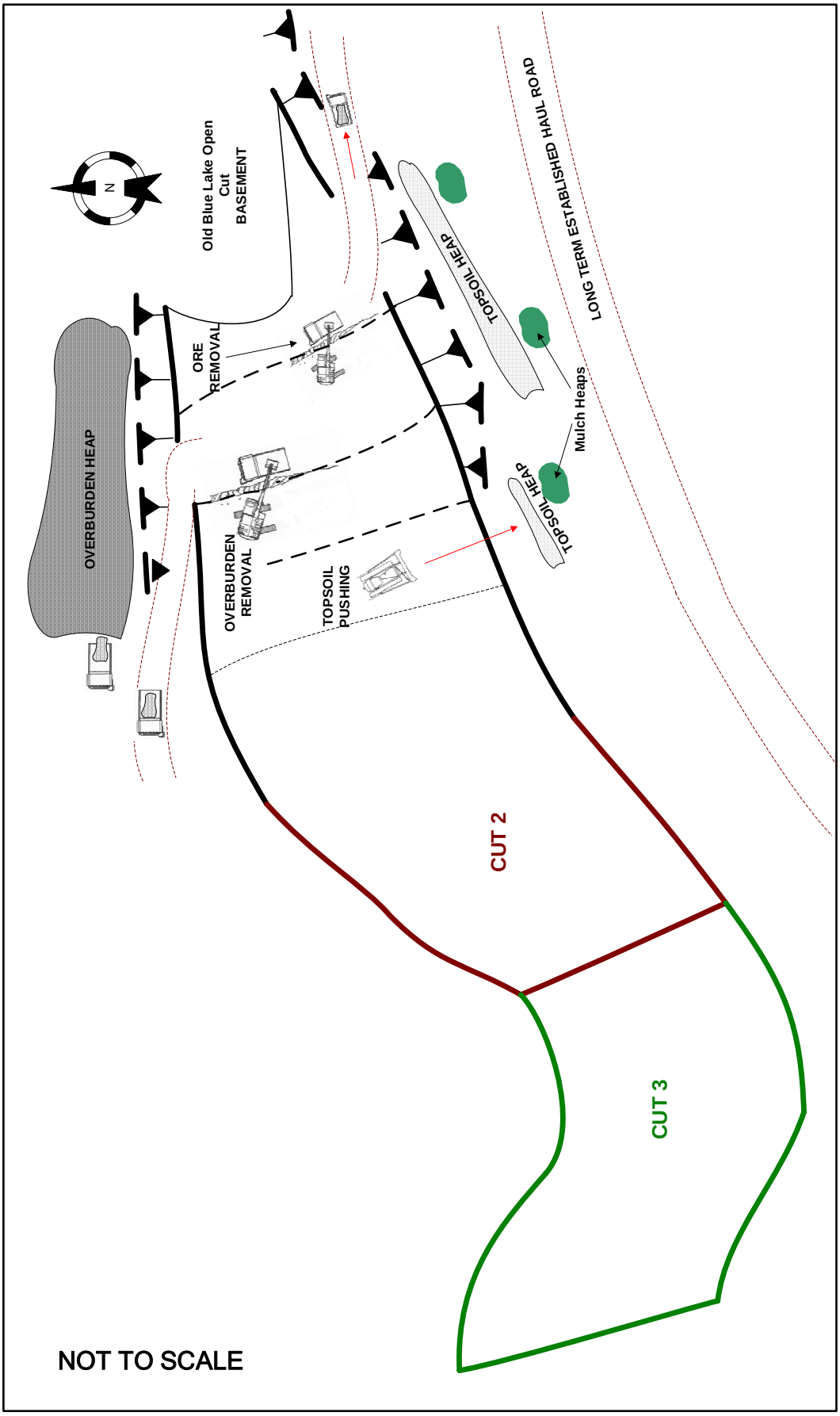


FIGURE 11 - STAGE 1: SCHEMATIC PLAN SHOWING PROGRESSIVE MINING OPERATION

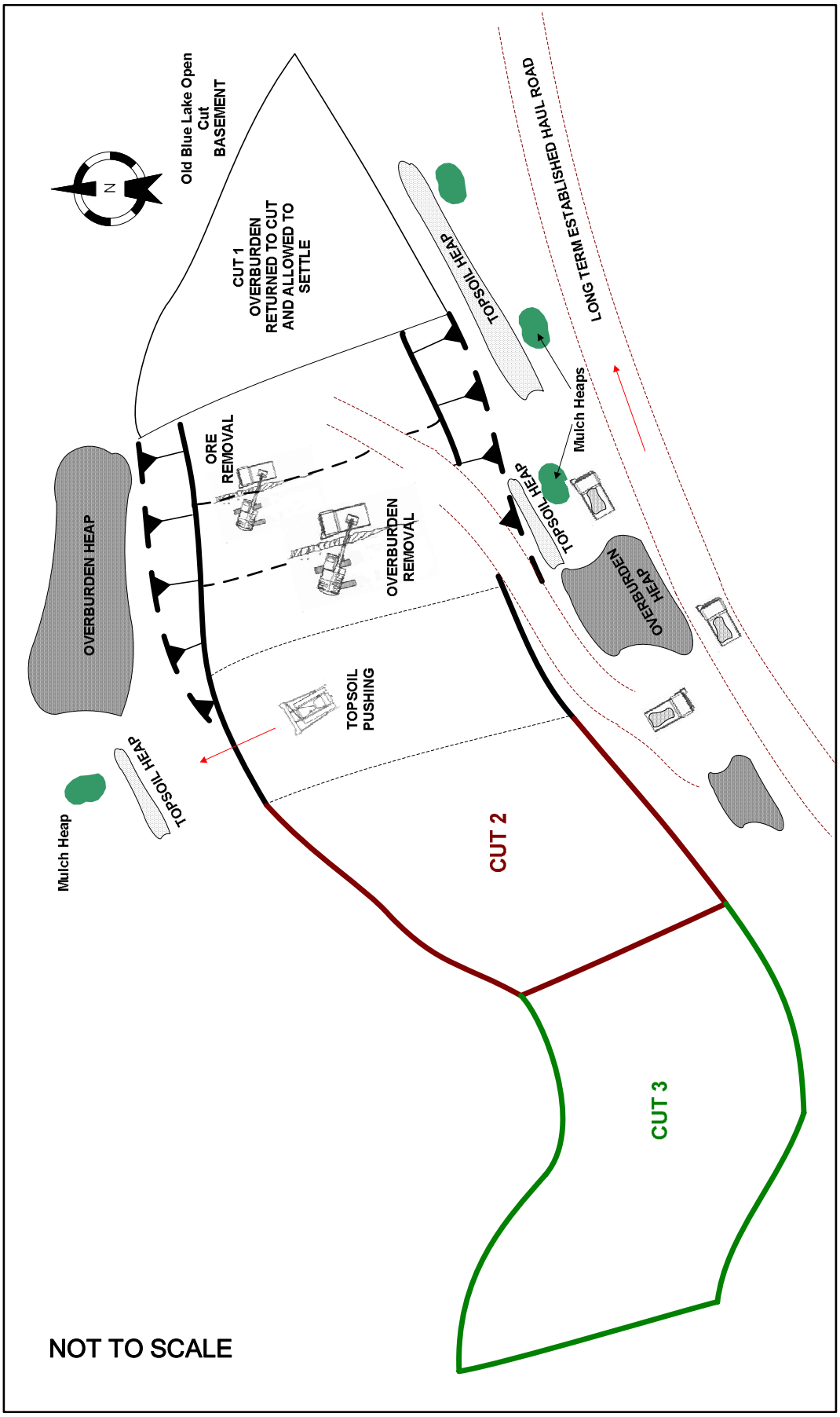


FIGURE 12 - STAGE 2: SCHEMATIC PLAN SHOWING PROGRESSIVE MINING OPERATION AND FIRST STAGE REHABILITATION

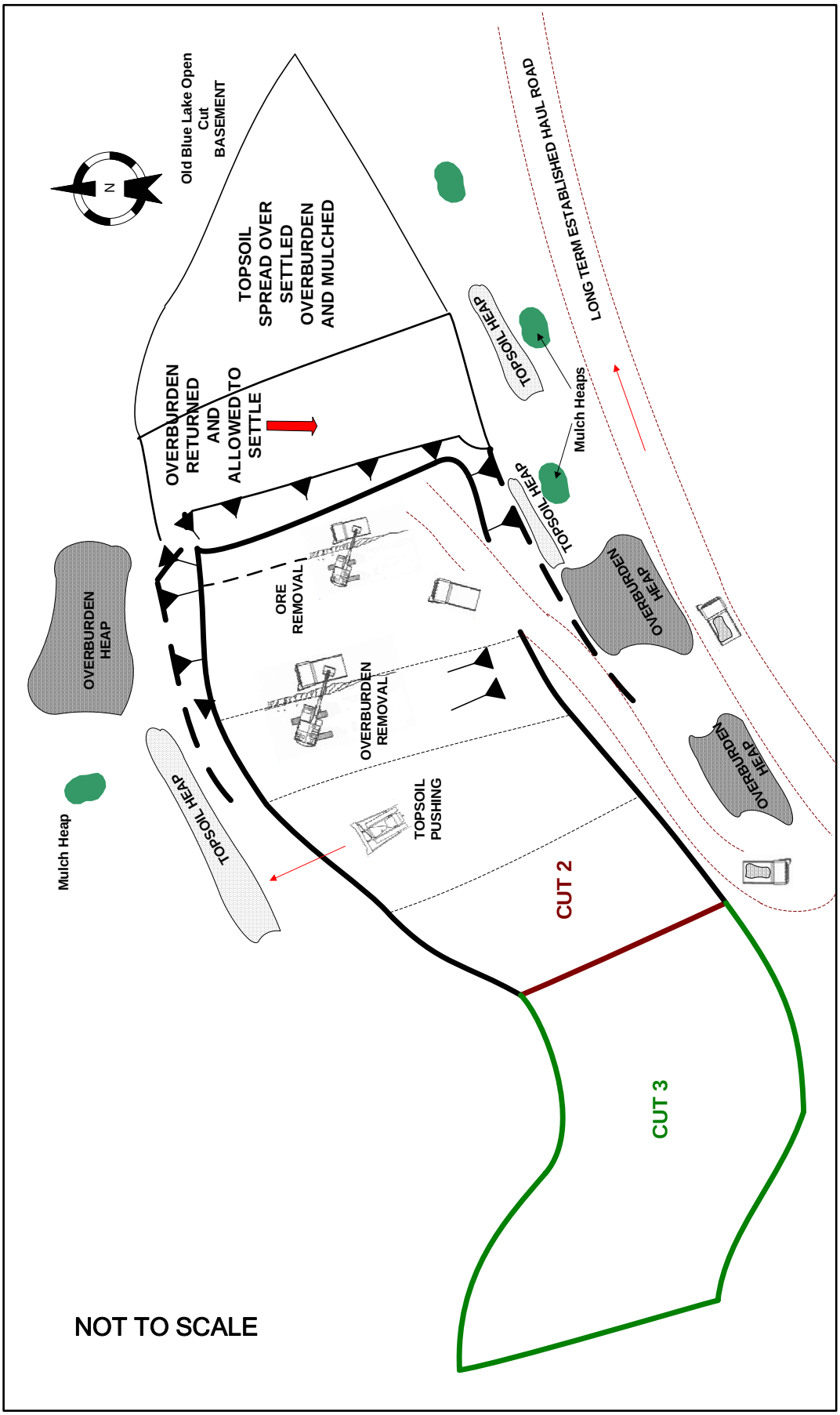


FIGURE 13 - STAGE 3: SCHEMATIC PLAN SHOWING PROGRESSIVE MINING OPERATION AND FIRST AND SECOND STAGES OF REHABILITATION

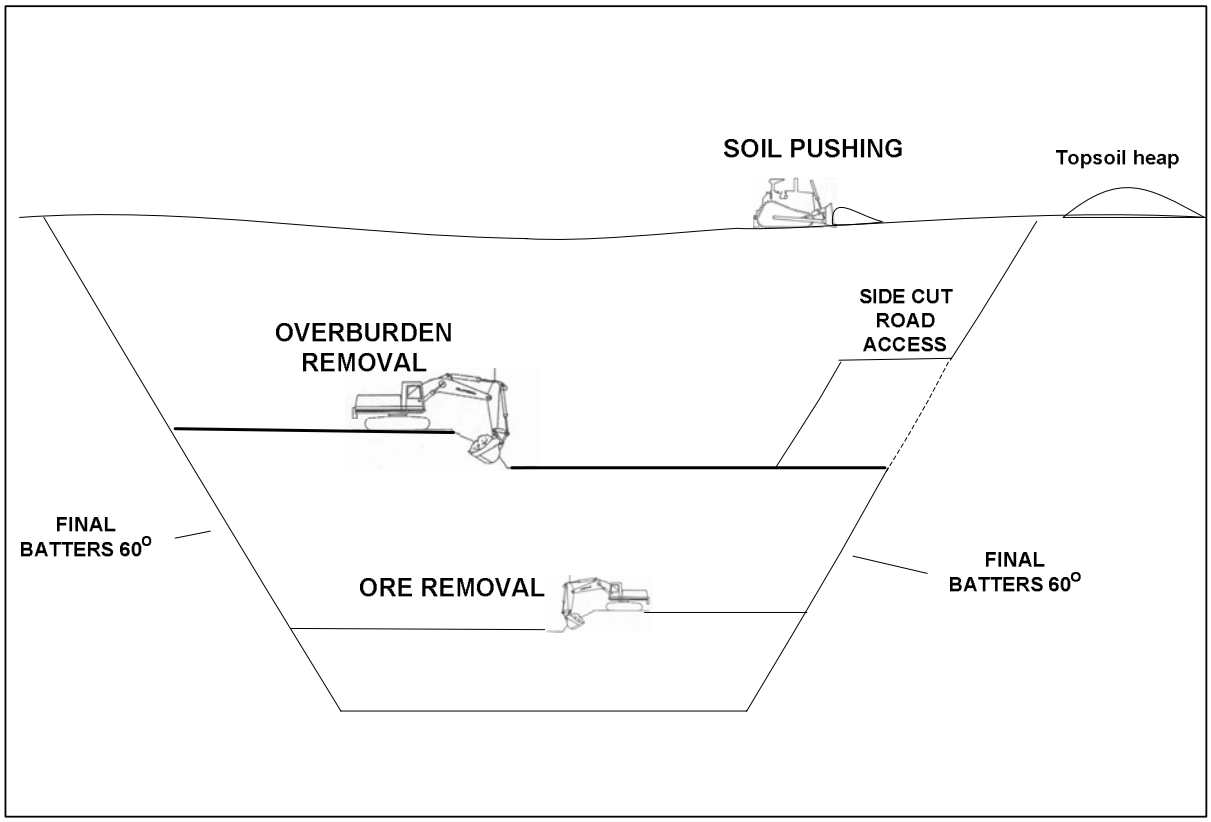


FIGURE 14 - SCHEMATIC CROSS SECTION ILLUSTRATING BENCHED MINE DEVELOPMENT

STAGE 3 – ENVIRONMENTAL CONTROLS

Six issues are addressed by the applicant in this proposal however it should be noted that these may change following the preparation of the EIA. Specific issues are:

a. NOISE AND DUST CONTROL

The nearest residences are located at South Mt Cameron some 2.5 km distant from the open pit operation. It is not envisaged that dust or noise pollution from the mining and haulage operation will affect those residences.

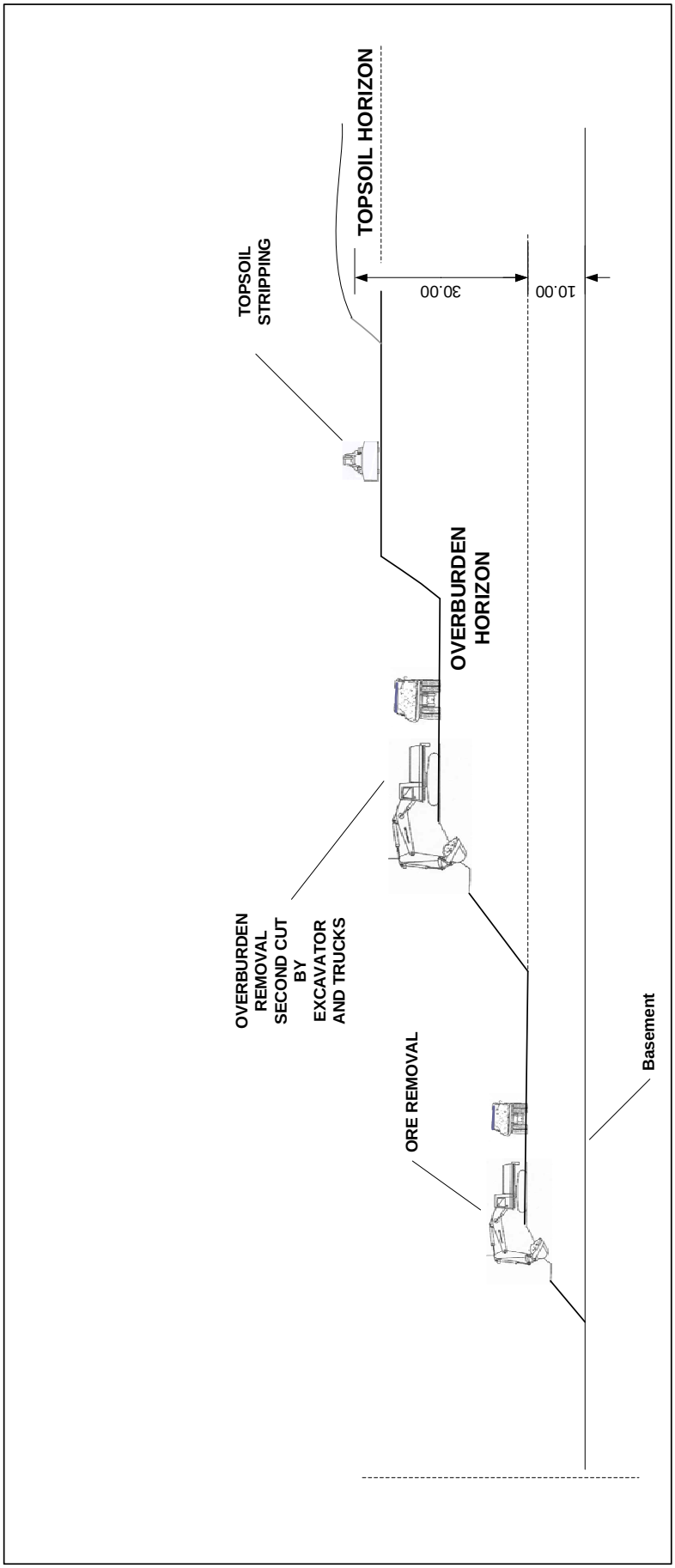


FIGURE 15 - SCHEMATIC LONG SECTION OF THE PROPOSED MINING OPERATION

Within the operating area dust control is considered a significant concern in this instance and the applicant proposes to minimize dust by:

- The addition of a CAT 769 water cart and CAT 14E grader to the machinery inventory to enable adequate dust suppression work to be undertaken on a daily basis;
- Control of heavy vehicle speeds along haul roads; and
- Location of ore drop points on stockpiles close to the treatment plant.

b. NOXIOUS WEED AND PLANT CONTROLS

The applicant is currently conducting a Flora / Fauna survey of the site and that survey will address the matter of noxious weeds and foreign plants currently occurring on the site. The results will be detailed in the EIA. No infestations are known at this time however the ongoing use of the area by weekend trail bike and boating people should be monitored and the effect those activities have on introduction of exotic plants addressed.

It is proposed that if any problem plants are recognized during the survey the applicant will make an effort, pre-mining to eradicate these and will monitor infestations and conduct spraying as required post-mining.

c. DRAINAGE AND EROSION CONTROL

A number of areas where drainage issues will impact have been recognized, these and the remedial methods to be established can be summarized as:

- Roads and Haul Roads: In general there is little topographic relief except along minor non perennial stream systems. Run-off drains will be constructed as required. Haul roads are temporary constructions and will be progressively rehabilitated along with mined areas care will be taken to ensure adequate drainage on sloped roads. Where necessary drains will be rock lined. Given the flat nature of the country silt traps and settling ponds are not considered necessary.

- Stockpiles: Stockpiles will be surrounded by low bund walls to prevent unnecessary run-off, drainage will be directed to tailings disposal areas. Pyritic or other acid forming materials have not been recorded from this deposit. Current baseline water testing is being carried out as pert of the EIA, to date no contaminants have been recorded.
- Treatment Plant Sites: Drainage controlled by low bunds where necessary and run-off directed to tailings dams.
- Site Offices / Workshops: Drainage directed to small settling ponds, no discharge problems envisaged.
- Run-off from Mt Cameron during periods of heavy rain is seen as a safety issue. Steam flow can be high and it is proposed to reduce the risk of flooding by temporary diversion of those mountain shedding streams into a refurbished water race system as depicted on the plans. These waters will be diverted into existing drainage systems away from the mine site or into the Blue Lake tailings area.

d. WASTE DISPOSAL AND STORAGE

The applicant has recognized several areas of concern, those along with proposed prevention and remediation practices are:

- Fuel Storage: All vehicles will use diesel fuel and storage will be in bunded tanks of 30,000 litre capacity. Hydrocarbon spillage equipment including spill absorbent material and chemicals will be stored on site and staff trained in its use.
- Oil Storage; All used oil will be stored on site in 200 litre drums, arrangements are to be made for a local oil removal group to regularly travel to site and collect old oil.
- Rubbish Waste: All waste to be binned and regularly removed to the Gladstone Town Dump Site.

e. TAILINGS DISPOSAL

All tailings will be pumped from the plant into the Blue lake area

It is anticipated that the tailings water will contain excessive suspended clays and will require settling using chemical flocculants. Testing of samples of the ore are to be carried out to determine if such practice is required and will be reported in the EIA. If required tailings water will be weired through silt traps.

f. REHABILITATION AND REVEGETATION

The Quarry Code of Practice sets out four areas where rehabilitation should be addressed:

- Stabilisation of worked areas to avoid erosion;
- Revegetation of worked areas;
- Minimisation of visual impact; and
- Ensure worked areas are safe.

The mining operation is to be progressive, that is, it will move westward along the buried channel. This means that the operation is not one where an open cut is progressively expanding around a central site. Rehabilitation and revegetation are planned to be progressive, that is they will follow closely on behind active mining. Four working areas are considered, specifically:

MINE OPEN CUT DISTURBANCE:

As indicated on the accompanying figures rehabilitation is to follow on almost immediately behind mining of the ore. Allowance will be made for ongoing vehicular access to the mine face however rehabilitation is planned to be less than one month after ore is extracted. The planned procedure to be adopted is:

- Overburden stockpiles will be bulldozed back into the open cut. This will involve some degree of compaction but further compaction time will be allowed before final rehabilitation is carried out. It is not envisaged that any significant slopes will be created as the current topography is flat lying;
- After adequate compaction time topsoil will be bulldozed over the filled area and spread using a dragged spreader bar;

- Any roadways or compacted areas caused by heavy machinery use and no longer required to be used by the operation will be ripped, leveled and rehabilitated in the manner described above;
- Mulch material collected during vegetation clearing will be spread over the disturbed area and where possible replanting of significant species will be undertaken in line with the findings of the EIA. Such replanting will be conducted in Autumn and spring;
- As required drains will; be created to avoid any unnecessary erosion of the rehabilitated area; and
- Follow up weed control will be conducted in accordance with guidelines set out in the EIA;

TREATMENT PLANT AND STOCKPILES:

As it is not proposed to move the treatment plant on a regular basis the old site will be rehabilitated immediately following the closure of the operation as follows:

- Stockpile areas will be ripped and bulldozed to remove any compacted material and expose old topsoil horizons. Material bulldozed from these sites will be pushed over tailings;
- Bunds, drains and roadways will also be bulldozed and treated in a similar fashion;
- The area will be disc ploughed and as required mulched and reseeded; and
- Follow up weed control will be conducted in accordance with guidelines set out in the EIA;

SITE OFFICE AND WORKSHOP AREAS:

These facilities will be rehabilitated at the same time as the treatment plant site.

TAILINGS AND FRESHWATER DAMS:

Two specific problems are addressed, tailings dam stability and fresh water dam wall stability.

- Tailings dams are recognized as a long term liability unless provision is made to stabilize and where possible drain boggy areas. It is proposed where possible to drain all tailings dams and to stabilise sand and mud tailings by a process involving re-contouring and re-vegetation.
  This will be undertaken by progressively dewatering the dams and when sufficiently dry commencing remedial works.
- Stability of freshwater dam walls will also be addressed. Walls will be planted with local native species, eucalypt, banksias and teatree. As required dam spillways will oriented so that overflow does not undercut dam walls and will be rock lined to avoid scouring and wall failure.

MINE WATER DISCHARGE:

In the initial stages of the operation it is proposed to reduce the level of the Blue Lake by pumping. The company is aware that this body of water is highly acid and contains high levels of alumina. Current baseline test work is being undertaken and will continue on a regular monthly basis. This work will allow the company to determine what the actual water quality levels are in both the short and long term and to develop a strategy to improve acidity and general water quality prior to discharge.

It is too early to provide a detailed procedure that would be adopted, these matters will be addressed in full in the EIA study.

STAGE 4 – LONG TERM SITE MONITORING

The planned mine life of the Endurance Project is 4 years although this may increase if exploration extends the resource is to the west. As part of the operation the company will conduct ongoing site monitoring of rehabilitated areas. Such monitoring will include:

- Water sampling of any major surface run-off and site discharge;
- Monitoring of noxious weed infestations and remedial spraying as required; and

- Monitoring of re-vegetation progress and remediation with replanting as required.

5 PUBLIC SAFETY

While the proposed mining operation is situated away from local population centers there are a number of local and historical attractions that attract the general public to the area. The Little Blue Lake located immediately adjacent to the main road is a regular tourist stopping point. The operation is away from this feature and will not impact on public use.

The area is currently popular with weekend trail bike riders. There have been several instances of late where company staff and consultants have had 'near miss' situations with these individuals. It is proposed to fence the 'Lease" as indicated on Figure 8, locked gates will be erected as indicated and safety signage put in place to warn trespassers of the risks of accidents involving heavy earthmoving machinery.

In addition the owner of the small parcel of Private Land actively encourages the use of the Blue Lake for jet and water skiing. The high acid water levels being reported in company test work coupled with high alumina contents are a major health concern for the users of the lake. Advice will be sought from the Health Department as to implications of the effect of use on long term health, closure of the lake for public use will be sought.

6 STAFFING ARRANGEMENTS

In order to conduct the mining plan and rehabilitation activities set out in the previous text the company intends to establish a site staff structure as set out in Figure 16.

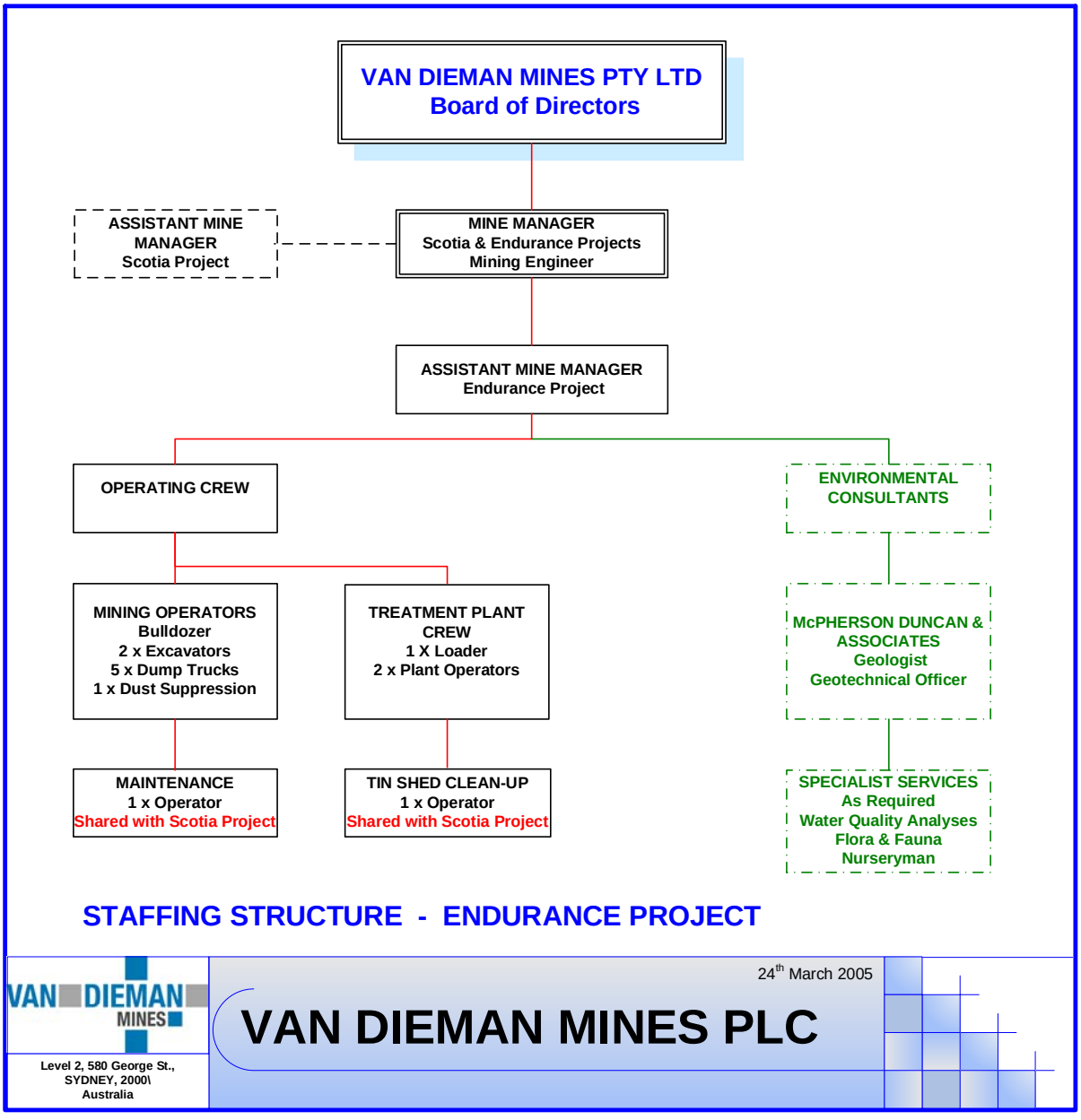


FIGURE 16 - STAFFING STRUCTURE, ENDURANCE PROJECT

In accordance with the provisions of the Mines Act and Regulations the Mine Manager will have total responsibility of ensuring that the 'Mine Plan' as set out by the Board of Van Dieman Mines and approved by Mineral Resources Tasmania and other relevant statutory bodies is adhered to.

The Board in appointing the Manager and his Assistant will take into account and rely on heavily their previous experience in matters of management and mine rehabilitation. The company will, prior to commencement of mining conduct a staff orientation program which will include:

- Workplace Safety;
- First Aid procedures; and
- Orientation in matters of Environmental Guidelines.

In addition to site staff the manager and his Assistant will be able to call on the services of outside consultants, this will be coordinated through Duncan McPherson and Associates who will provide geological and geotechnical expertise not available on a daily basis at site. In turn, Duncan McPherson will have Board approval to enlist the services of other specialist consultants in matters of water quality, flora and fauna and other environmental matters that may from time to time arise.

7 CONCLUSION

In order to reduce environmental impact and simplify mine start-up the company intends to take advantage of a number of the old abandoned mine open cut created by BMI Mining. This cut will be dewatered, and waters discharged through an acid remediation circuit. It is proposed to utilize this cut for water and tailings storage and thus reduce initial mine impact on the environment.

The Plan detailed in this text is simple and allows for speedy rehabilitation as the mining cut progresses along the buried palaeo-channel by a process of systematic reclamation and re-vegetation of worked areas.

The mining itself involves the excavation of a deep steeply walled slot. In the initial stages where total depths do not exceed 25 metres, walls are expected to stand at 60^{O} batters and no benching is envisaged. Previous operations indicate that in fact the walls of deep cuts will continue to stand at this angle to depths of +30 metres, that is, the depths expected in the western section of the channel.

The company believes the plan detailed in this report adequately addressed matters of mine safety and rehabilitation of the site post mining and treatment sites and allows for the economic and structured extraction of the heavy mineral bearing ore.