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# David Steane & Associates

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MINERAL RESOURCES	
FILE NO	68146
DATE	26 JUL 2000
TIME	11/02/830
LOG	✓ ✓

9 August 1999

Mr W Grun  
Mining Engineer  
Mineral Resources Tasmania  
PO Box 56  
ROSNY PARK 7018

Dear Mr Grun,

## Summary of Work Done at Oakdene Road (to be read in conjunction with Specifications in Proposal A)

1. Site survey and planning, etc - has been done.
2. Car bodies, concrete slabs and other rubbish. Car bodies, mostly flattened, then buried in excavation on site. A few removed to Municipal tip.  
Concrete slabs - some buried, some taken to tip.  
Weeds - some burned in hot log fire on site, some buried, some take to tip.
3. Area of bitumen waste with growth of trees and shrubs was top-dressed generously with topsoil, then fertilised and seeded.
4. Stumps and logs mostly used to construct peripheral barriers to prevent access by 4 WDs, etc. Some stumps and logs burnt.
5. All existing erosion gullies filled, compacted and cross ripped prior to general top-soiling and contour ripping.
6. Settling ponds excavated at bottom (east end) of most areas and additional ponds and retaining bunds constructed as considered appropriate across the slope of several of the rehabilitation areas.
7. Overburden heaps cleared of trees and shrubs and soil spread over worked out gravel areas, mostly to a minimum depth of 150 mm (in places considerably thicker). All areas then graded and cross ripped.
8. Contour drains and bunds constructed where considered advisable after top soiling. Some of these drains had outfalls to the main drainage systems, others were intended as water-absorption structures with no outfall.
9. Fewer slope drains constructed than originally intended because the reworked site seemed to be of such form and soil texture that slope drains were unnecessary and probably undesirable in that they might invite erosion unnecessarily.

Two drains on the northern rehab site were stoned to minimise erosion risk. Elsewhere stoning not considered necessary. On the southern area a water diversion bund was constructed to collect water from the upper area and divert it to the north east through a settling pond and away from the southern boundary and a farm access road. This diversion drain and some of the ground above it suffered some erosion and siltation early on and was



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Summary of work done at Oakdene Road /  
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treated by hand construction of minor cross structures, some thatching and planting of sedges, etc.

Further work is likely to be required on this area over the next few months as the site settles down. Some silt fencing and additional planting is anticipated.

10. Trees and brush removed prior to spreading top soil were placed in contour lines after spreading top soil and ripping. Unfortunately very few of these trees were carrying viable seed.
11. Ryecorn was broadcast over all areas. This grain attracted parrots and Pademelons in large numbers. Most seed was eaten before it germinated, or soon afterwards. Very little rye corn survived and established itself in the face of this attack.

Seed of native species of trees, shrubs and ground cover plants were sown, the mixture being varied to suit various local conditions of drainage, soil type, shade, etc.

Native seeds were mixed with fine ground pine bark which made an excellent spreading agent.

You will note in my letter of 31 May that I did not order any eucalypt seed as I anticipated collecting plenty on site. As it turned out, I was able to collect plenty of seed of cutting grass, tea tree, bull oak and scrub oak, but very little Eucalyptus seed. If I am unable to collect sufficient eucalypt seed locally in the near future I shall have to purchase from Wildseed Tasmania Ltd. and sow it in the spring.

12. Wildlings of cutting grass, other native sedges and grasses were planted in moist earth sites and along some drainage lines. (Scottsdale High School children gave some help with this work). The wildlings were mostly collected from an abandoned road some kilometres from Oakdene Road but from a comparable habitat.
13. NPK fertiliser was spread over the whole area, though at a lower rate than originally specified (probably nearer 100 kg/ha than 150 kg/ha). Some fertiliser is being held over for use in the spring. Sulphate of ammonia was spread along contour bunds and other places where it was considered it would most help the rye corn to establish quickly in critical areas. However, as said in 11. above the rye corn seed was nearly all eaten within a few days of sowing.
14. Tree trunks placed as needed to block access.
15. Signs still to be erected (probably within two weeks).
16. Site will be monitored and treated as appropriate over the next nine to twelve months.

#### **Smokewater and Other Seed Treatment**

As an "extra" to the contract the use of Regen 2000 TM Smokewater treatment was tested to improve and hasten germination of the seed of native species, using the two products Regen 2000 TM Smokemaster for direct treatment of seeds and Regen 2000 TM Direct to spray on the soil.

The treatment of seed with Smokemaster was found to be a simple and easy process and was applied on a larger scale than originally planned.

3.

The use of Regen 2000 TM Direct in a diluted solution applied through a knapsack pump was considerably more arduous, messy and time consuming so was restricted to three trial plots only.

The location of the trials and further notes regarding species, etc will be included in a separate report to be supplied with site plans of all works after my next visit to Oakdene Road - probably next week.

In addition to the Smokewater treatment outlined above, much hard-coated seed of various species - especially Acacias, other legumes and cutting grass - was soaked in boiling water prior to mixing with a fine pine bark bulking agent. Some seed of legumes and cutting grass was sown without boiling water treatment as was the seed of casuarinas and other soft seeds.

Again, more details will be furnished with site plans after my next visit.

Yours sincerely,

David Steane

David Steane

**SITE 1**

**1. Water Diversion**

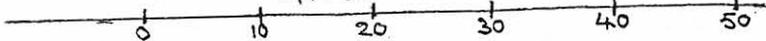
- 1.1 A bund **B** was constructed to divert water from upper area SE and E towards pond (P2) and to limit flow down slope near farm access road on S side.
- 1.2 A holding pond (P1) was excavated near bottom of access road, but instead of spilling to table drain the overflow was directed through a cutting to the second pond (P2) which, in turn, spills through a vegetated drain to the table drain and thence back to the culvert near the farm access track.
- 1.3 Final drainage lines indicated by heavy arrows

**2. Revegetation and other Works**

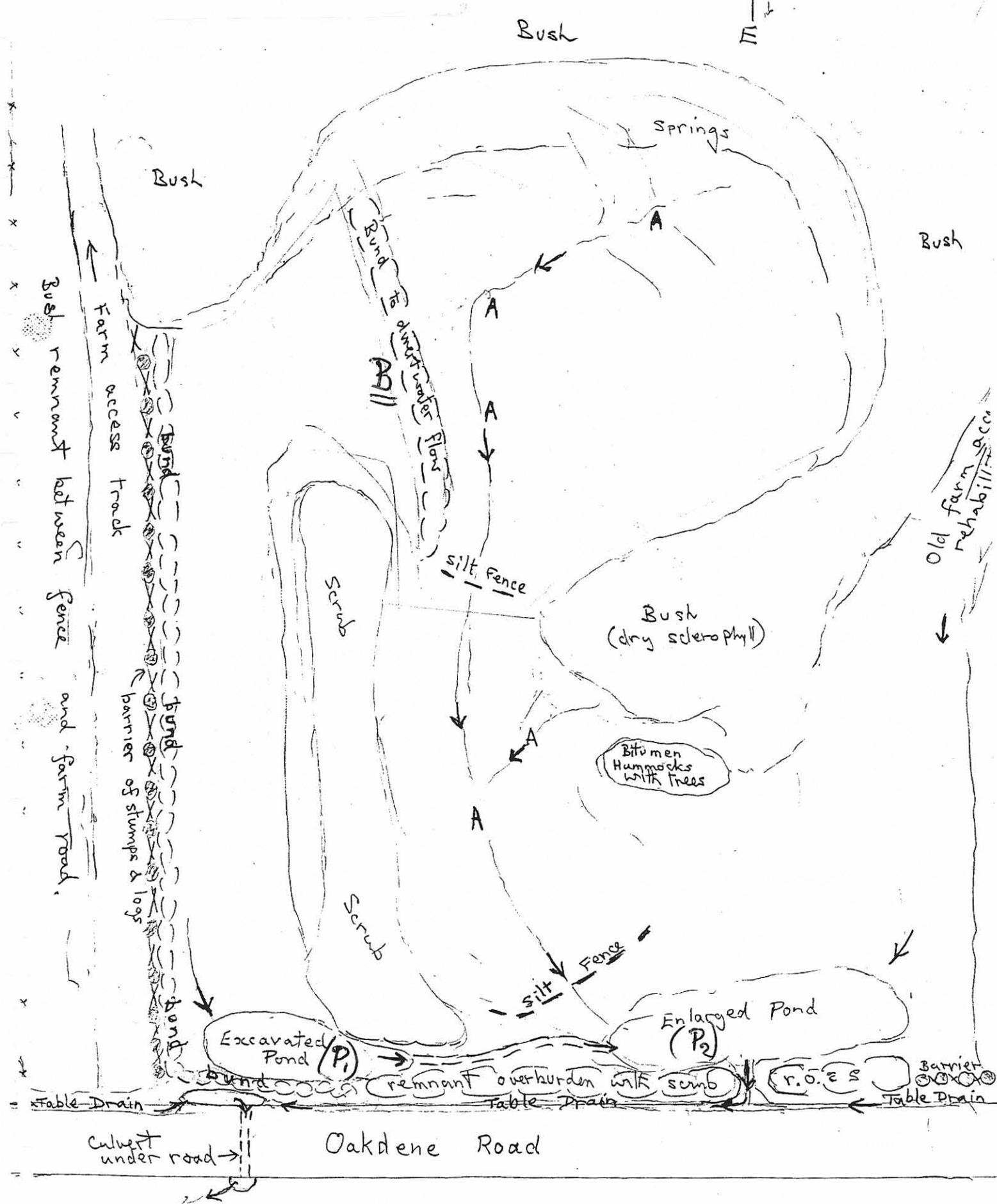
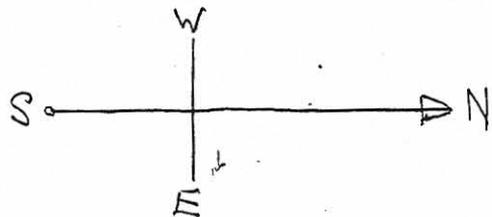
- 2.1 Cutting grass and sedges planted in short lines and clumps across drainage lines.
- 2.2 Silt fences still to be constructed as indicated during spring.  
Erosion and siltation not serious to date. No heavy sediments are passing pond (P2) to reach table drain.
- 2.3 Area outlined and cross hatched in red was sown with seeds treated with Smokewater.
- 2.4 Balance area sown with seed **not** treated with Smokewater, although "hard" seeds treated with boiling water.

# SITE 1.

Approx. Scale in metres.



5 cm



## **SITE 2**

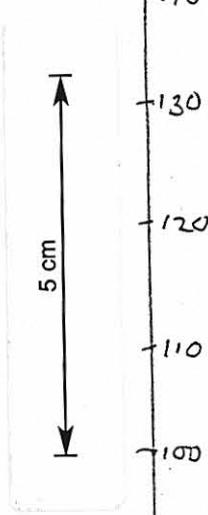
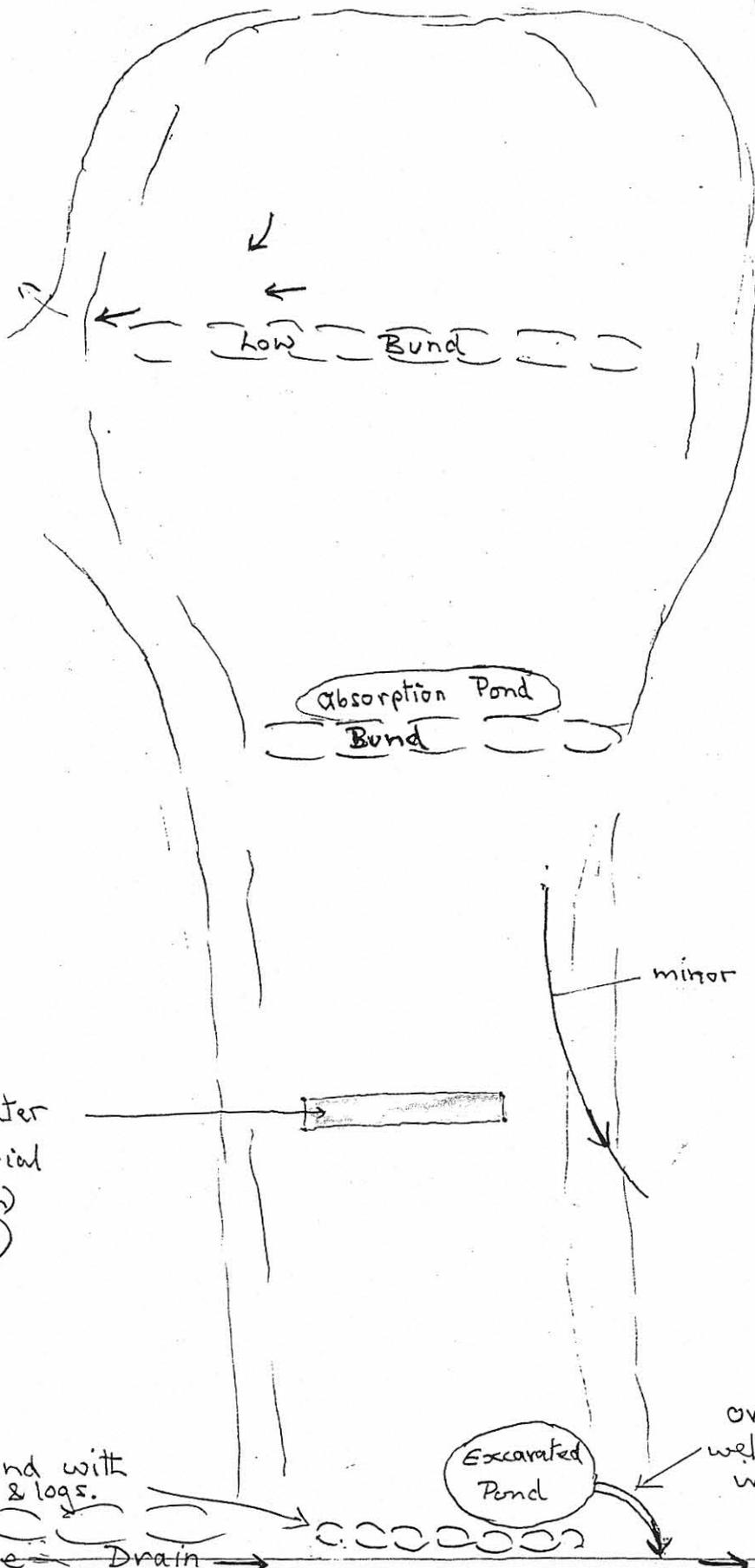
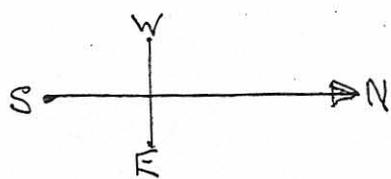
### **1. Water Management**

- 1.1 Earthworks including filling of erosion gullies, top soiling, etc greatly reduced run off.
- 1.2 Cross bunds and absorption ponds as illustrated further reduced risk of any run-off from upper half of area.
- 1.3 Pond excavated at bottom of area to hold and settle water before spilling to roadside table drain.

### **2. Vegetation**

- 2.1 Whole area sown with native seeds without pre treatment with Smokewater.
- 2.2 Plot established (pegged at corners) and treated by spraying with **Smokewater "Direct"** at +/- 100 ml/m<sup>2</sup>.

SITE 2.



Approx. Scale in metres.

140  
130  
120  
110  
100  
90  
80  
70  
60  
50  
40  
30  
20  
10  
0

Smoke water  
Direct  
spray trial  
(2m x 20m)  
(100ml/m<sup>2</sup>)

Barrier Bund with  
stumps & logs.

Absorption Pond  
Bund

Low Bund

minor scour channel

Excavated  
Pond

overflow through  
well developed veg.  
in old drainage line

Table Drain

Oakdene Road

## **SITE 3.**

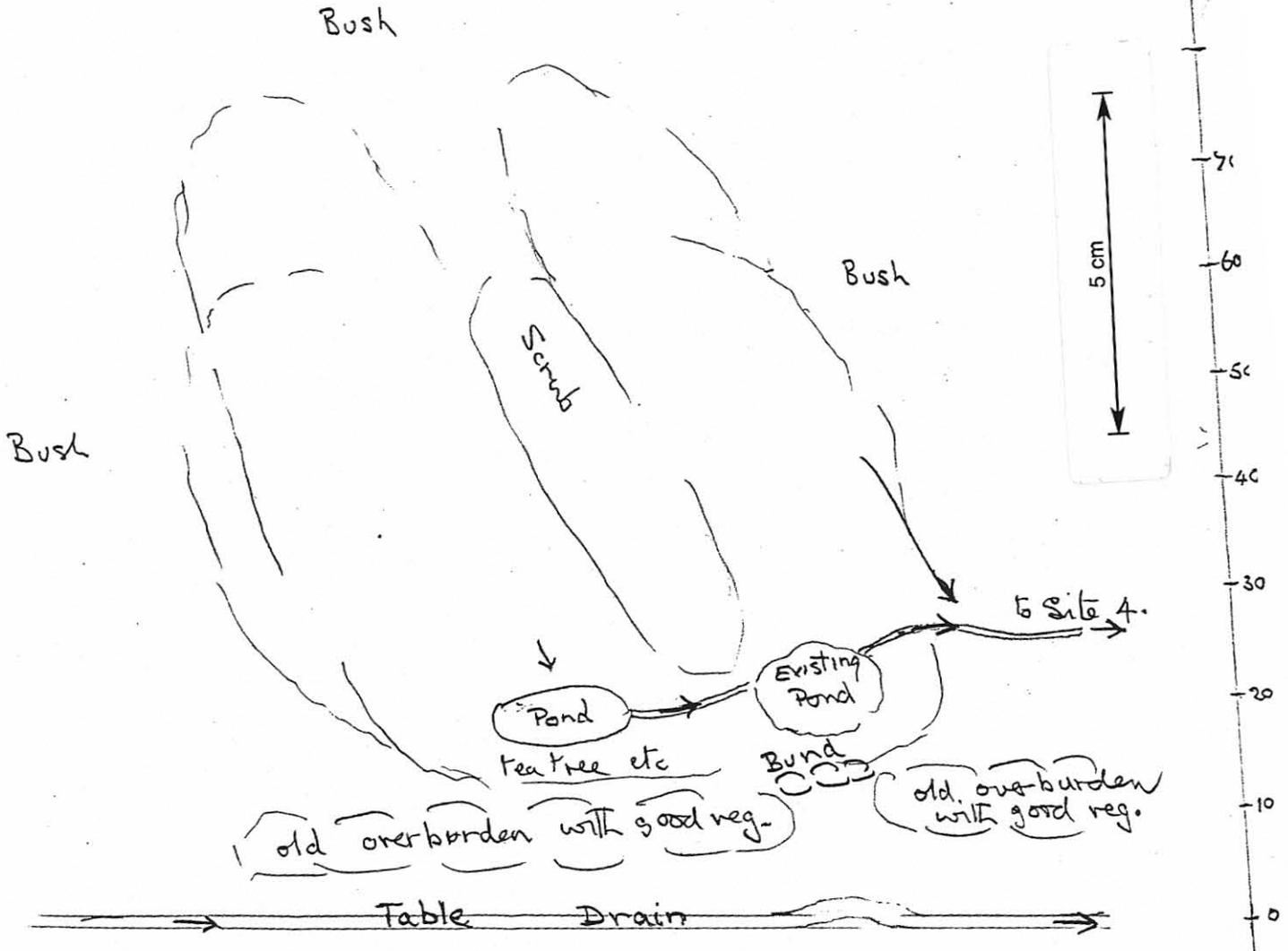
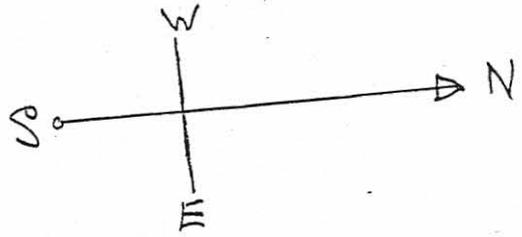
### **1. Water Management**

- 1.1 Earthworks to minimise run-off included top soiling, ripping and minor cross slope bunds.
- 1.2 Ponds at bottom of two bays connected and drain extended northwards to Site 4 and thence to Site 5. No direct spill to roadside table drain.

### **2. Vegetation**

- 2.1 No Smokewater treatment.
- 2.2 Whole area sown with seed mix in which hard-coated seed were treated with boiling water.

SITE 3.



Bush

Bush

Scrub

Bush

Pond

tea tree etc

Existing Pond

Bund

old overburden with good veg.

old overburden with good veg.

Table Drain

to Site 4.

5 cm

70

60

50

40

30

20

10

0

## **SITE 4.**

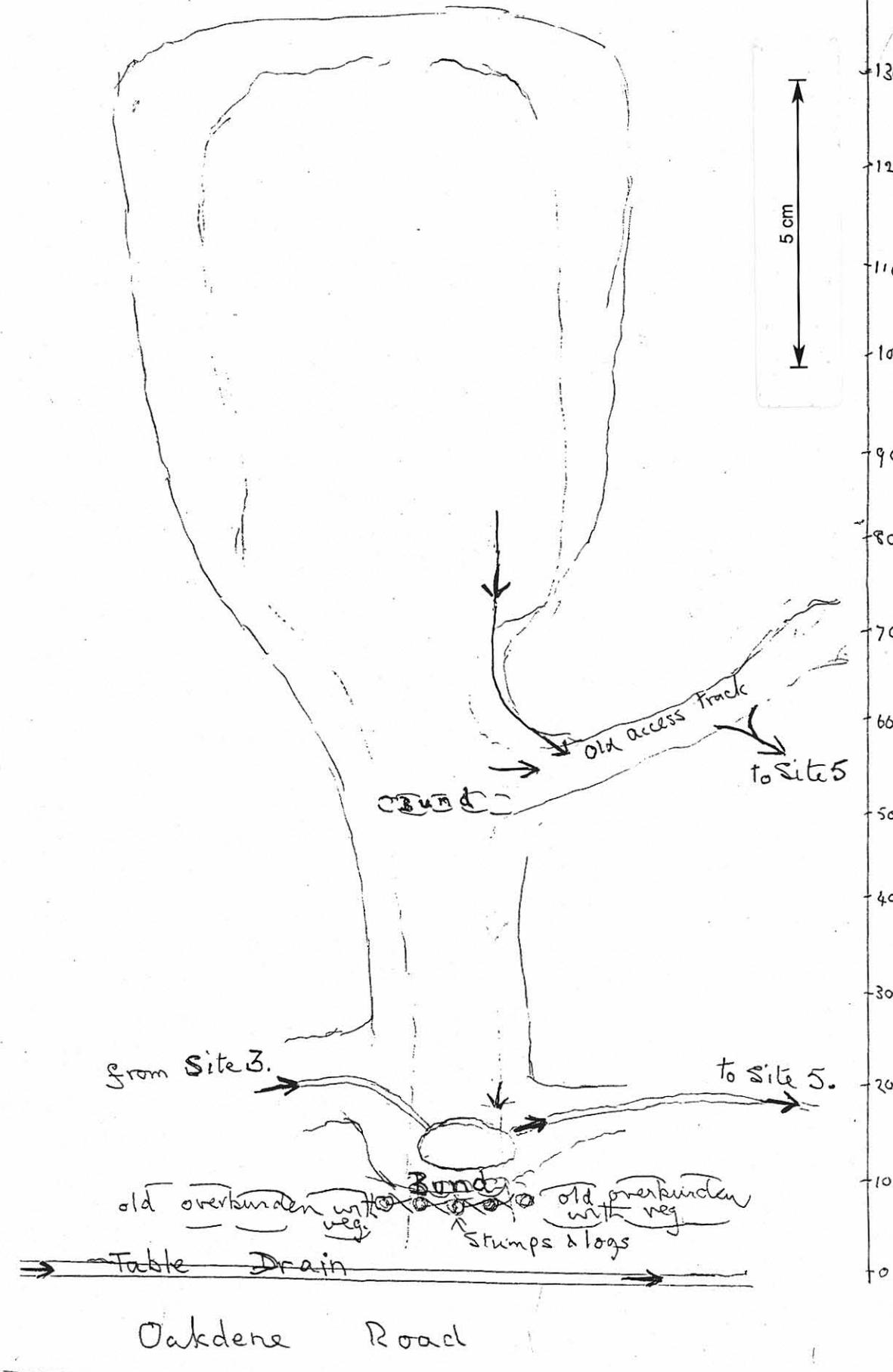
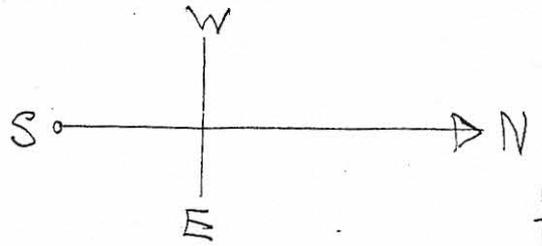
### **1. Water Management**

- 1.1 Earthworks to maximise infiltration and minimise run-off.
- 1.2 A bund +/- 50 m from road to divert minor run-off northwards to Site 5.
- 1.3 At bottom of area a small holding pond excavated and retained by roadside bund, and a through drainage system excavated from Site 3. to the pond and on to Site 5.

### **2. Vegetation**

No Smokewater used. Seed treatment as for Site 3.

SITE 4



## **SITE 5.**

### **1. Water Management**

- 1.1 Erosion lines filled and area soiled and ripped, etc. to reduce gradients and minimise run-off.
- 1.2 Major cross slope bunds constructed at about 10 m and 60 m from road with absorption ponds above.
- 1.3 Two drains stoned as indicated to reduce scour.
- 1.4 Some further structural work (rock chute or drop structure) will be installed in spring and some silt fence will also be set up.

The bottom pond is deep enough to settle and hold sediments with minimal risk of sediments reaching table drain at road.

### **2. Vegetation**

- 2.1 Upper part of Site 5 sown with seed treated with Smokewater. (See area marked in red).
- 2.2 Balance area sown with seed treated as for Areas 3 and 4.
- 2.3 Two plots +/- 20 m and +/- 40 m from road pegged out and sprayed with Smokewater "Direct" at 100 ml/m<sup>2</sup>.

SITE 5

