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WATER DIVISION  
Investigation Branch  
Groundwater Section

Report No. 58/84 D

BORE COMPLETION REPORT

BORE 23462

MALABANDBARDJU CAMP

DANUTA KARP

HYDROGEOLOGIST

NOVEMBER 1984

CONTENTS

- 1. INTRODUCTION
- 2. HYDROGEOLOGY
- 3. RESULTS
- 4. RECOMMENDATIONS
- 5. ATTACHMENTS

Bore Location Map

Bore construction details

Registered Bore No. 23462

Bore Completion Report

Registered Bore No. 23462

Water sample analyses

Registered Bore No. 23462

DISTRIBUTION

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Australian National Parks and Wildlife Service Canberra	2
Department of Housing and Construction Darwin	1
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Chief Ranger Kakadu National Park Jabiru	1
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Water Division Bore Data File	1

1. INTRODUCTION

This report provides details of construction and pumping recommendations for pumping bore 23462 for the use of the camping site.

The work was carried out in October 1984 on behalf of the Australian National Parks and Wildlife Service.

The Malabandardju camp site is located along Jim Jim road situated 13 km from Arnhem Highway turn off.

2. HYDROGEOLOGY

The region belongs to the north eastern part of the Pine Creek Geosyncline. The area is underlain by Cahill Formation of Early Proterozoic age, which mainly consists of schist, gneiss and quartzite.

3. RESULTS

One bore was drilled and constructed with steel casing and screen. Twenty four hour constant discharge test and recovery tests were conducted and water samples taken.

Water quality is considered suitable for human consumption.

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4. RECOMMENDATIONS

Recommendations for pumping

The recommendation for pumping of the bore are presented in the table below.

BORE	MAX. CONTINUOUS PUMPING RATE	MAX. PUMP SETTING BELOW GROUND LEVEL	MIN. INTERNAL BORE DIAMETER
23462	1.0 L/s	35.90 m	152 mm

These recommendations are based on available hydraulic and hydrologic data considered safe, but not conservative.

Exceeding the pumping rate will fork the bore which may lead to pump problems.

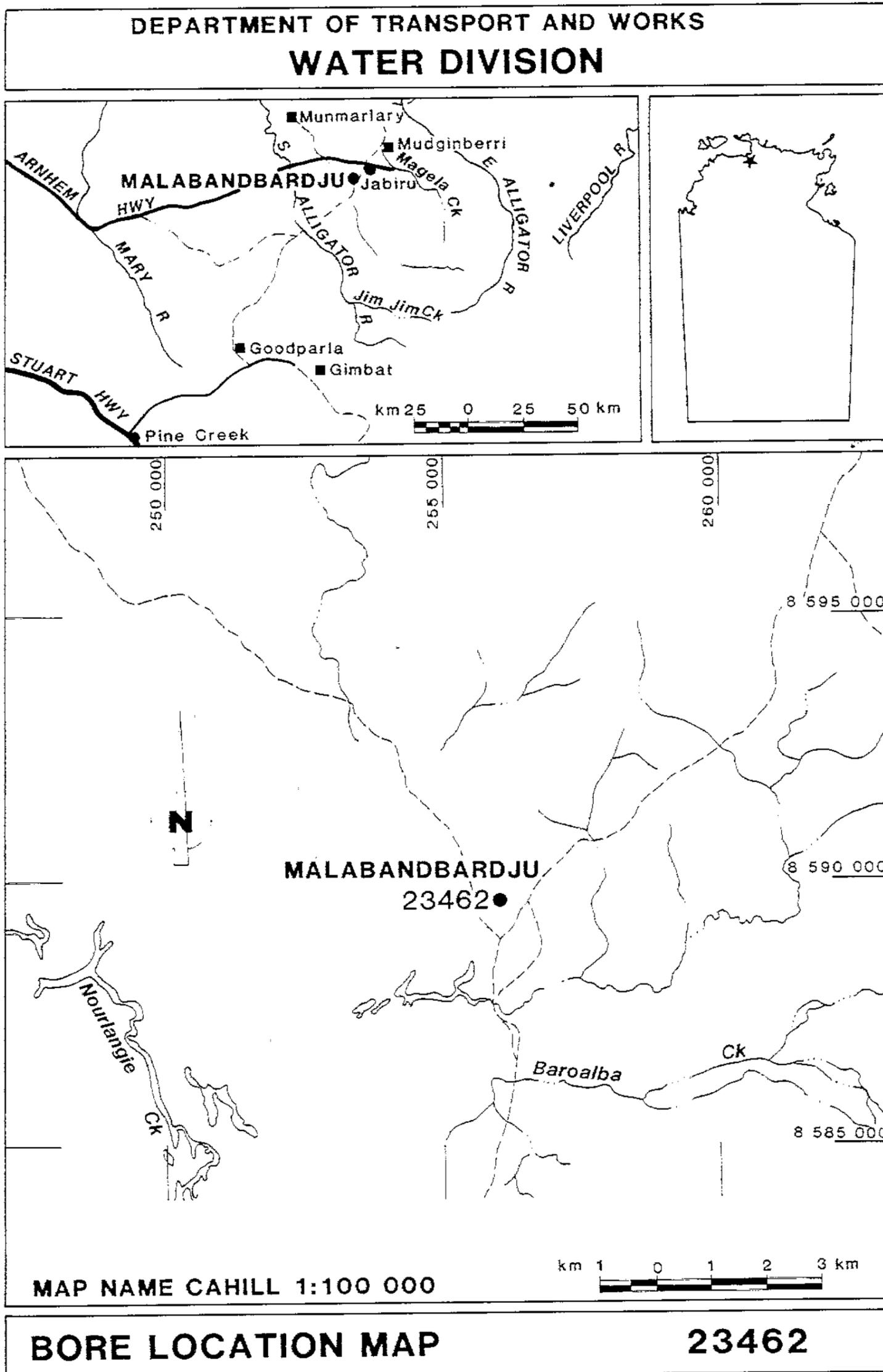
Recommendations for finishing and protecting of bores

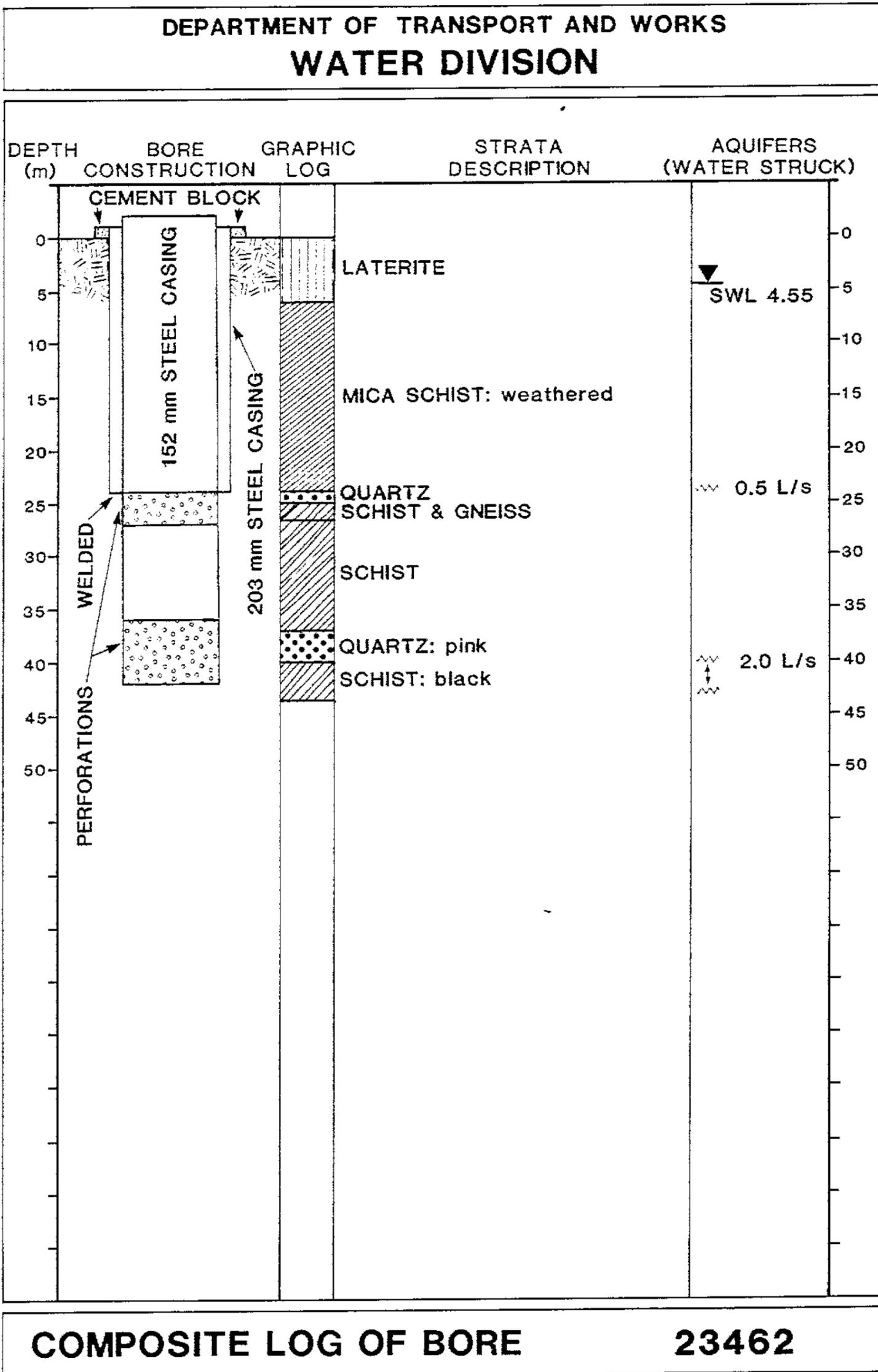
Attention to the following points will ensure a long and safe life for the bore supply and help prevent pollution of the groundwater resource.

- (1) Construct a concrete apron around the bore-head approximately 2 m in diameter.
- (2) Prevent drainage of surface flow and waste water to the bore in the vicinity of the bore.
- (3) Prevent spillage of fuel and oil on the ground around the bore.
- (4) First tap on the pipeline should not be less than 5 m from the bore-head.
- (5) Seal the space between casing and pump equipment to prevent ingress of vermin, dirt and pollutants.
- (6) If the bore should be no longer required, the casing is to be securely capped and the bore backfilled.
- (7) Maintain pumping equipment in good order to prevent pollution.

In addition, please ensure that the BORE IDENTIFICATION TAG is retained securely when the bore is equipped. This is best done by setting the bore cap into the concrete surround when it is cut off to allow equipping of the bore.

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DEPARTMENT OF TRANSPORT AND WORKS

WATER DIVISION

File:

BORE COMPLETION REPORT

IDENTIFICATION:

Bore Name: MALANBANVANJU CAMP R.N.: 23462  
 Location: KAKADU NATIONAL PARK I.N.: 79/675  
 Grid Reference: 560.896 Advice No:  
 Map:

CAHILL 1:100 000  
 SHEET : 5472

RECOMMENDATIONS:

Maximum continuous pumping rate: 1.0 L/s  
 Pump Setting: 35.90 m  
 Minimum bore diameter: 152 mm

BORE DATA:

Total depth: 44.60 m  
 Date Bore Completed 23.1.85  
 S.W.L. 4.55 m at 23/1/85

CONSTRUCTION

ALL MEASUREMENTS FORM TOP OF CASING 0.98 m ABOVE GROUNDLEVEL.

Interval	Description
0 m to 24 m	203 mm BLANK STEEL CASING
0 m to 24.0 m	152 mm BLANK STEEL CASING
24.0 to 26.0 m	152 mm SLOTTED CASING
26.0m to 37.0 m	152 mm BLANK STEEL CASING
37.0 m to 43 m	152 mm SLOTTED CASING

43.0 m to 44.60 m OPEN HOLES  
 ALL MEASUREMENTS FROM GROUND LEVEL

Casing straightness tested	yes	36 m dolly/mirror	passed	yes
	no		test	no
Casing plumbness tested	yes	max. permissable	passed	yes
	no	deviation.....		no

WATER ANALYSIS:

See attached Sheet.

- COMMENTS: 1/ A drawdown measuring device and a continuous recording discharge flow meter should be fitted when equipping this bore.
- 2/ Weekly recordings of each should be forwarded at monthly intervals to the Senior Engineer, Groundwater Section, Water Division, P.O. Box 1096 of SASCO House, Cavenagh Street, DARWIN.

Prepared by: J S RYKIERT  
 Designation: TO 2  
 Date: 12.2.85

Approved by:  
 Designation:  
 Date:

**DEPARTMENT OF TRANSPORT AND WORKS  
WATER DIVISION**

WATER ANALYSIS

Department of Transport & Works  
Water Division, Darwin N.T.



Laboratory Register No. 84/85/1489

Date received in Laboratory 12.3.85

WR 4/1A

Bottle No. RT419

Time of sampling 0800

Date of sampling 24.1.85

LOCATION AND DETAILS

MALBAH BANDJU (KARADU) R/N 23462 DEPTH 34.9m  
BISCH 1.0LPS ORIFACE TUBE TEMP 31°C RWT 142 RSP1826

Proposed water use:- Domestic, Stock, Irrigation, other (specify)

**ANALYSIS - PHYSICAL**

<input type="checkbox"/> pH	<u>7.7</u>	<input type="checkbox"/> Colour (Hazen units)	
<input type="checkbox"/> Specific conductance (microsiemens/cm at 25° C)	<u>400</u>	<input type="checkbox"/> Turbidity (NTU's)	
<input type="checkbox"/> Total dissolved solids (mg/L - by evaporation at 180° C)	<u>240</u>	<input type="checkbox"/> Suspended solids (mg/L)	

**ANALYSIS - CHEMICAL (mg/L)**

<input type="checkbox"/> Sodium, Na	<u>40</u>	<input type="checkbox"/> Chloride, Cl	<u>18</u>
<input type="checkbox"/> Potassium, K	<u>5</u>	<input type="checkbox"/> Sulphate, SO <sub>4</sub>	<u>4</u>
<input type="checkbox"/> Calcium, Ca	<u>14</u>	<input type="checkbox"/> Nitrate, NO <sub>3</sub>	<u>&lt;1</u>
<input type="checkbox"/> Magnesium, Mg	<u>21</u>	<input type="checkbox"/> Bicarbonate, HCO <sub>3</sub>	<u>235</u>
<input type="checkbox"/> Total Hardness (as CaCO <sub>3</sub> )	<u>121</u>	<input type="checkbox"/> Carbonate, CO <sub>3</sub>	
<input type="checkbox"/> Total Alkalinity (as CaCO <sub>3</sub> )	<u>193</u>	<input type="checkbox"/> Fluoride, F	<u>0.4</u>
<input type="checkbox"/> Iron, (total) Fe	<u>0.5</u>	<input type="checkbox"/> Orthophosphate, PO <sub>4</sub>	
<input type="checkbox"/> Silica, SiO <sub>2</sub>	<u>45</u>	<input type="checkbox"/> NaCl (calc. from chloride)	<u>30</u>

**ANALYSIS - ADDITIONAL (mg/L)**

<input type="checkbox"/> Copper, Cu	<input type="checkbox"/> Lead, Pb	<input type="checkbox"/> Arsenic, As
<input type="checkbox"/> Manganese, Mn	<input type="checkbox"/> Zinc, Zn	<input type="checkbox"/> Cadmium, Cd
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

THE SAMPLE AS ANALYSED COMPLIES/~~DOES NOT~~ COMPLIES WITH NORTHERN TERRITORY DRINKING WATER STANDARDS AS RECOMMENDED BY THE NORTHERN TERRITORY DEPARTMENT OF HEALTH.



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Analysed by [Signature]

Date 18.3.85

Boxes marked thus  indicate levels considered undesirable for drinking water by the Northern Territory Department of Health.

**WATER SAMPLE ANALYSIS - BORE 23462**