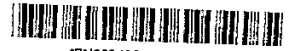


ENTER

THE NORTHERN TERRITORY OF AUSTRALIA

Control of Waters Act



\*RN029425\*

FINAL STATEMENT OF BORE

NAME OF OWNER : <i>N.T. GOVERNMENT.</i>	REGISTRATION No : <i>29425</i>
NAME OF BORE : <i>8/94</i>	INDEX/MAP No : <i>80/5127</i>
INTENDED USE : <i>PIEZOMETER.</i>	ADVICE No : <i></i>
LOCATION : <i>EAST HOWARD.</i>	PERMIT No : <i></i>

From	To	Particulars of strata	Name of Contractor
0	3.0	<i>RED + YELLOW SANDY CLAY</i>	<i>WATER RESOURCES</i>
3.0	6.9	<i>YELLOW CLAY</i>	Name of Driller : <i>G. STEPHENS.</i>
6.9	21.0	<i>YELLOW + WHITE CLAY</i>	Date Commenced : <i>11-8-94</i>
21.0	23.0	<i>RED + WHITE CLAYSTONE</i>	Date Completed : <i>11-8-94</i>
23.0	28.4	<i>RED YELLOW + WHITE CLAY</i>	Depth Drilled : <i>37.0 (m)</i>
28.4	32.0	<i>QUARTZ COARSE SAND + CLAY</i>	Completion Depth : <i>35.0 (m)</i>
32.0	37.0	<i>YELLOW CLAYSTONE + QUARTZ.</i>	

METHOD OF DRILLING

Rot.  Rev. Circ.  Cable  Others

HOLE DIAMETER

DRILLING FLUID

From	To	Diameter	Type
0	37.0	<i>152mm</i>	<i>AIR. POLYMER.</i>

PARTICULARS OF CASING

PARTICULARS OF PERFORATIONS OR SCREEN STRINGS

From	To	Diam (ID)	Type	From	To	Diam (ID)	Aperture	Type
0	2.0	<i>156mm</i>	<i>STEEL.</i>	30.0	35.0	<i>55mm</i>	<i>1mm</i>	<i>SLOTTED.</i>
0	35.0	<i>55mm</i>	<i>P.V.C.</i>					

Casing Suspended  Yes  No  
 Method :  
 Height of Casing above G.L. : *1.0 (m)*

TOP OF PACKER SET AT : (m)  
 LENGTH OF PACKER : (m)  
 METHOD OF PACKER CONNECTION :

CEMENTING/GRAVEL PACKING

WATER BEARING BEDS

From	To	Type	Depth (m) From	To	Yield (L/s)	SWL (m)	Duration (hr)	Quality	EC	pH	Bottle No.
0	6.0	<i>CEMENT</i>									
25.0	29.0	<i>CEMENT</i>									
29.0	37.0	<i>5mm GRAVEL.</i>									
<i>AIRLIFT TO CLEAN MUD.</i>											

STRATA AND WATER SAMPLES

Have been  Will be  
 Left at : *DARWIN*

Completion Yield : (L/s) Method : Duration : (hr)  
 Completion SWL (G.L.) : (m) Depth of Lift : (m)

LOCATION SKETCH OF BORE <u>RN29425</u>		LOCATION DESCRIPTION OF BORE	
		<u>5</u> m/ <del>km</del> <input checked="" type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> SE <input type="checkbox"/> NE <input type="checkbox"/> W <input type="checkbox"/> N <input type="checkbox"/> SW <input type="checkbox"/> NW OF: <u>21046</u>	
FINAL CONSTRUCTION STATUS.			
<input checked="" type="checkbox"/> Capped <input type="checkbox"/> Casing pulled <input type="checkbox"/> Left for Observation <input type="checkbox"/> Abandoned <input type="checkbox"/> Equipped <input type="checkbox"/> Backfilled <input type="checkbox"/> Others ( )			
ADDITIONAL INFORMATION OF INTEREST ABOUT BORE			
Signature of Licenced Driller <u>[Signature]</u> Date <u>16/8/94</u>			
FOR OFFICIAL USE ONLY			
HOW LOCATED: <input type="checkbox"/> GPS <input type="checkbox"/> TST <input type="checkbox"/> SURVEY <input checked="" type="checkbox"/> HAND PLOTTED <input type="checkbox"/> OTHER ( )			
ELEVATION OF BORE   AHD:   (m) From <input type="checkbox"/> G.L. <input type="checkbox"/> TOC			
DESCRIPTION OF PROPERTY			
<input type="checkbox"/> Rural <input type="checkbox"/> VCL <input type="checkbox"/> Min <input type="checkbox"/> Pastoral <input type="checkbox"/> Reserve <input type="checkbox"/> SPL <input type="checkbox"/> E.L. <input type="checkbox"/> Other			
Lease No:   Lot No:   Hundred of: Portion No:   Sect. No:   Town of:			
CLASS OF BORE <input type="checkbox"/> TOWN <input type="checkbox"/> DOM <input checked="" type="checkbox"/> INV. <input type="checkbox"/> AGR. <input type="checkbox"/> MIN. <input type="checkbox"/> PAS. <input type="checkbox"/> OTHER			
USE OF BORE <input type="checkbox"/> PROD. <input type="checkbox"/> INV. <input type="checkbox"/> IRR. <input checked="" type="checkbox"/> OBS. <input type="checkbox"/> MON. <input type="checkbox"/> ROAD			
GRID REFERENCE <input checked="" type="checkbox"/> AMG <input type="checkbox"/> CLARKE   Zone: <u>92</u> Scale: <u>1:10000</u>			
EASTING: <u>734609</u>		LATITUDE:   MAP NAME: <u>Hamptly Dec</u>	
NORTHING: <u>8616206</u>		LONGITUDE:   MAP NUMBER: <u>0710</u>	
AWRC STREAM BASIN No: <u>319</u> Major Geological Units ( Name ):   _____			
GEOPHYSICAL LOG RUN   YES / NO   Date:   /   /   Depth:   (m)			
<input type="checkbox"/> Gamma <input type="checkbox"/> SP <input type="checkbox"/> Camera <input type="checkbox"/> Density <input type="checkbox"/> Point Res. <input type="checkbox"/> Caliper <input type="checkbox"/> Other ( )   TEST PUMP: YES / NO			
Date Registered: <u>5/10/94</u> Plotted on the map: <input checked="" type="checkbox"/> YES / NO			
Officer:   Signature: <u>DKR</u>			
Remarks:			

24 821

735278E

8617076 N 60494 GPS  
ZONE: 52 R. FARROW

Government Printer of the Northern Territory



**LANDS, PLANNING  
ENVIRONMENT**

P.O. BOX 30 Palmerston N.T. 0831  
Telephone: (08) 8982 6413  
Facsimile: (08) 8982 6410

Bottle No.:

*FHOT*

Lab Register No.:

**94**

WATER RESOURCES

WATER CHEMISTRY LABORATORY

Date Received in Lab:

*15/1/98*

Time Sampled:

*1437*

Date Sampled:

*7/1/98*

R/N No.:

*29425*

Depth (m):

*30*

Q: *0.1LPS*

Map:

Sampler:

*RF*

G.S. No.:

G.H. (m):

Q:

G.R.:

Location: *HOWARD EAST MUD HOLE*

Field Temp °C:

*29.1*

Field pH:

*7.06*

Field Cond µS/cm:

*319*

*OBSERVATION BORE*

RSP:

Project No.:

*RMD 5535*

**ANALYSIS - PHYSICAL**

<input type="checkbox"/> pH [4500-H+B]	6.6	<input type="checkbox"/> Colour (Hazen units) [2120B]	
<input type="checkbox"/> Electrical conductivity (microsiemens/cm at 25°C) [2510B]	298	<input type="checkbox"/> Turbidity (NTU's) [2130B]	
<input type="checkbox"/> Total dissolved solids (mg L <sup>-1</sup> - dried at 180°C) [2540C]	199	<input type="checkbox"/> Suspended solids (mg L <sup>-1</sup> ) [2540D]	

**ANALYSIS - CHEMICAL (mg L<sup>-1</sup>)**

<input type="checkbox"/> Sodium, Na [3111B]	2	<input type="checkbox"/> Chloride, Cl [4500-Cl <sup>-</sup> B]	3
<input type="checkbox"/> Potassium, K [3111B]	<1	<input type="checkbox"/> Sulphate, SO <sub>4</sub> [G]	8
<input type="checkbox"/> Calcium, Ca [3111D]	32	<input type="checkbox"/> Nitrate, NO <sub>3</sub> [4500-NO <sub>3</sub> <sup>-</sup> B]	<1
<input type="checkbox"/> Magnesium, Mg [3111B]	20	<input type="checkbox"/> Bicarbonate, HCO <sub>3</sub> [2320B]	200
<input type="checkbox"/> Iron, (total) Fe [3111B]	0.1	<input type="checkbox"/> Carbonate, CO <sub>3</sub> [2320B]	0
<input type="checkbox"/> Total Hardness (as CaCO <sub>3</sub> ) Calculation [2340B]	162	<input type="checkbox"/> Hydroxide, OH [2320B]	0
<input type="checkbox"/> Total Hardness (as CaCO <sub>3</sub> ) Titration [2340C]		<input type="checkbox"/> Fluoride, F [4500-F <sup>-</sup> C]	0.5
<input type="checkbox"/> Total Alkalinity (as CaCO <sub>3</sub> ) [2320B]	164	<input type="checkbox"/> NaCl (calc. from chloride)	5
<input type="checkbox"/> Silica, SiO <sub>2</sub> [4500-Si D]	47	<input type="checkbox"/> Dissolved Oxygen [4500-0-C]	

**ANALYSIS - ADDITIONAL (mg L<sup>-1</sup>)**

<input type="checkbox"/> Copper, Cu [3111B]		<input type="checkbox"/> Manganese, Mn [3111B]		<input type="checkbox"/> Zinc, Zn [3111B]	
<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	

- ❖ U/S DENOTES UNSUITABLE FOR ANALYSIS C1 22609 0087-4/2/98 # 8
- ❖ I/S DENOTES INSUFFICIENT SAMPLE
- ❖ F DENOTES FILTRATE ANALYSIS
- ❖ T DENOTES TOTAL ANALYSIS

This report relates specifically to the "sample tested as received".

The test methods used (denoted within brackets) refer to the 1992 18th edition of "Standard Methods for the examination of Water and Wastewater", A.P.H.A. Except [G] which refers to the method of R. Goguel, Anal. Chem. 1969, 41, 1034.

DATE: **6 FEB 1998**

CHECKED: *J. M. Hume*

SIGNATORY: *E. C. ...*

**RECEIVED**

**10 FEB 1998**

**D.L.P.E - W.R.D.**

- Boxes marked thus indicate:
- Levels are within the limits as quoted in the "Guidelines for Drinking Water Quality in Australia", 1987 N.H. & M.R.C. and the A.W.R.C.
  - Levels exceed non-health related limits.
  - Levels exceed health related limits



G.P.O. BOX 1096, Darwin N.T. 0801  
 Telephone: (08) 8924 6413  
 Facsimile: (08) 8924 6410

Bottle No.:  
*RN 30833*

Lab Register No.:  
**347**

Date Received in Lab:  
*5/6/97*

Time Sampled:  
*0950*

Date Sampled:  
*4/6/97*

WATER CHEMISTRY LABORATORY

R/N No.: *29425* Depth (m): *29*

Q: *0.1*

Map:

Sampler:

*RF*

G.S. No.:

G.H. (m):

Q:

G.R.:

Location: *HOWARD EAST*

Field Temp °C: *29.2*

Field pH: *7.06*

Field Cond µS/cm: *328*

*MUD HOLE OBSERVATION BORE*

RSP:

Project No.:  
*RMD 5535*

**ANALYSIS - PHYSICAL**

<input type="checkbox"/> pH	[4500-H*B]	7.3	<input type="checkbox"/> Colour (Hazen units)	[2120B]	
<input type="checkbox"/> Electrical conductivity (microsiemens/cm at 25°C)	[2510B]	308	<input type="checkbox"/> Turbidity (NTU's)	[2130B]	
<input type="checkbox"/> Total dissolved solids (mg L <sup>-1</sup> - dried at 180° C)	[2540C]	202	<input type="checkbox"/> Suspended solids (mg L <sup>-1</sup> )	[2540D]	

**ANALYSIS - CHEMICAL (mg L<sup>-1</sup>)**

<input type="checkbox"/> Sodium, Na	[3111B]	4	<input type="checkbox"/> Chloride, Cl	[4500-Cl* B]	3
<input type="checkbox"/> Potassium, K	[3111B]	1	<input type="checkbox"/> Sulphate, SO <sub>4</sub>	[G]	<1
<input type="checkbox"/> Calcium, Ca	[3111D]	43	<input type="checkbox"/> Nitrate, NO <sub>3</sub>	[4500-NO <sub>3</sub> * B]	<1
<input type="checkbox"/> Magnesium, Mg	[3111B]	27	<input type="checkbox"/> Bicarbonate, HCO <sub>3</sub>	[2320B]	211
<input type="checkbox"/> Iron, (total) Fe	[3111B]	0.3	<input type="checkbox"/> Carbonate, CO <sub>3</sub>	[2320B]	0
<input type="checkbox"/> Total Hardness (as CaCO <sub>3</sub> ) Calculation	[2340B]	218	<input type="checkbox"/> Hydroxide, OH	[2320B]	0
<input type="checkbox"/> Total Hardness (as CaCO <sub>3</sub> ) Titration	[2340C]		<input type="checkbox"/> Fluoride, F	[4500-F* C]	0.1
<input type="checkbox"/> Total Alkalinity (as CaCO <sub>3</sub> )	[2320B]	173	<input type="checkbox"/> NaCl (calc. from chloride)		5
<input type="checkbox"/> Silica, SiO <sub>2</sub>	[4500-Si D]	55	<input type="checkbox"/> Dissolved Oxygen	[4500-O-C]	

**ANALYSIS - ADDITIONAL (mg L<sup>-1</sup>)**

<input type="checkbox"/> Copper, Cu	[3111B]		<input type="checkbox"/> Manganese, Mn	[3111B]		<input type="checkbox"/> Zinc, Zn	[3111B]	
<input type="checkbox"/>			<input type="checkbox"/>			<input type="checkbox"/>		

- ❖ U/S DENOTES UNSUITABLE FOR ANALYSIS C1 29972 1997-0345 # 3
- ❖ I/S DENOTES INSUFFICIENT SAMPLE
- ❖ F DENOTES FILTRATE ANALYSIS
- ❖ T DENOTES TOTAL ANALYSIS

This report relates specifically to the "sample tested as received".

DATE: **17 JUN 1997**

The test methods used (denoted within brackets) refer to the 1992 18th edition of "Standard Methods for the examination of Water and Wastewater", A.P.H.A. Except [G] which refers to the method of R. Goguel, Anal. Chem. 1969, 41, 1034.

CHECKED: *E. Gz*


SIGNATORY: *E. Gz*

- Boxes marked thus indicate:
- Levels are within the limits as quoted in the "Guidelines for Drinking Water Quality in Australia", 1987 N.H. & M.R.C. and the A.W.R.C.
  - Levels exceed non-health related limits.
  - Levels exceed health related limits

**RECEIVED**

**17 JUN 1997**

**P.A.W.A. - W.R.D.**

 <b>POWER AND WATER AUTHORITY</b> WATER RESOURCES <b>WATER CHEMISTRY LABORATORY</b>	G.P.O. BOX 1096, Darwin N.T. 0801 Telephone: (08) 8924 6413 Facsimile: (08) 8924 6410		Bottle No.: <b>PAL 11</b>	Lab Register No.: <b>2417</b>
	Date Received in Lab: <b>31.12.96</b>		Time Sampled:	Date Sampled: <b>27.12.96</b>
R/N No.: <b>29425</b>	Depth (m): <b>30</b>	Q:	Map:	Sampler: <b>DON PIDSELY</b>
G.S. No.:	G.H. (m):	Q:	G.R.:	
Location: <b>HOWARD EAST BOREFIELD REGION</b>			Field Temp °C: <b>29.3</b>	Field pH: <b>6.95</b>
			Field Cond µS/cm: <b>320</b>	
			RSP:	Project No.: <b>RMD 5535</b>

### ANALYSIS - PHYSICAL

<input type="checkbox"/> pH	[4500-H*B]	6.8	<input type="checkbox"/> Colour (Hazen units)	[2120B]
<input type="checkbox"/> Electrical conductivity (microsiemens/cm at 25°C)	[2510B]	308	<input type="checkbox"/> Turbidity (NTU's)	[2130B]
<input type="checkbox"/> Total dissolved solids (mg L <sup>-1</sup> - dried at 180°C)	[2540C]	162	<input type="checkbox"/> Suspended solids (mg L <sup>-1</sup> )	[2540D]

### ANALYSIS - CHEMICAL (mg L<sup>-1</sup>)

<input type="checkbox"/> Sodium, Na	[3111B]	2	<input type="checkbox"/> Chloride, Cl	[4500-Cl*B]	4
<input type="checkbox"/> Potassium, K	[3111B]	<1	<input type="checkbox"/> Sulphate, SO <sub>4</sub>	[G]	11
<input type="checkbox"/> Calcium, Ca	[3111D]	32	<input type="checkbox"/> Nitrate, NO <sub>3</sub>	[4500-NO <sub>3</sub> *B]	<1
<input type="checkbox"/> Magnesium, Mg	[3111B]	20	<input type="checkbox"/> Bicarbonate, HCO <sub>3</sub>	[2320B]	200
<input type="checkbox"/> Iron, (total) Fe	[3111B]	0.1	<input type="checkbox"/> Carbonate, CO <sub>3</sub>	[2320B]	0
<input type="checkbox"/> Total Hardness (as CaCO <sub>3</sub> ) Calculation	[2340B]	162	<input type="checkbox"/> Hydroxide, OH	[2320B]	0
<input type="checkbox"/> Total Hardness (as CaCO <sub>3</sub> ) Titration	[2340C]		<input type="checkbox"/> Fluoride, F	[4500-F*C]	0.1
<input type="checkbox"/> Total Alkalinity (as CaCO <sub>3</sub> )	[2320B]	164	<input type="checkbox"/> NaCl (calc. from chloride)		7
<input type="checkbox"/> Silica, SiO <sub>2</sub>	[4500-Si D]	40	<input type="checkbox"/> Dissolved Oxygen	[4500-O-C]	

### ANALYSIS - ADDITIONAL (mg L<sup>-1</sup>)

<input type="checkbox"/> Copper, Cu	[3111B]		<input type="checkbox"/> Manganese, Mn	[3111B]		<input type="checkbox"/> Zinc, Zn	[3111B]
<input type="checkbox"/>			<input type="checkbox"/>			<input type="checkbox"/>	

- ❖ U/S DENOTES UNSUITABLE FOR ANALYSIS C1 38995 4-28/2/97ss # 13
- ❖ I/S DENOTES INSUFFICIENT SAMPLE
- ❖ F DENOTES FILTRATE ANALYSIS
- ❖ T DENOTES TOTAL ANALYSIS

This report relates specifically to the "sample tested as received".

The test methods used (denoted within brackets) refer to the 1992 18th edition of "Standard Methods for the examination of Water and Wastewater", A.P.H.A. Except [G] which refers to the method of R. Goguel, Anal. Chem. 1969, 41, 1034.

DATE: **11 MAR 1997**

CHECKED: *[Signature]*

SIGNATORY: *[Signature]*

Boxes marked  Levels are within the limits as quoted in the "Guidelines for Drinking Water Quality in Australia", 1987 N.H. & M.R.C. and the A.W.R.C.

Levels exceed non-health related limits.

Levels exceed health related limits.

**RECEIVED**

**12 MAR 1997**

**P.A.W.A. - W.R.D.**



WATER CHEMISTRY LABORATORY

G.P.O. BOX 1096, Darwin N.T. 0801  
Telephone: (08) 8924 6413  
Facsimile: (08) 8924 6410

Bottle No.:

MT 11

Lab Register No.:

1358

Date Received in Lab:

13.6.96

Time Sampled:

1319

Date Sampled:

11.6.96

R/N No.:

29425

Depth (m):

Q:

0.175

Map:

Sampler:

EK / RF

G.S. No.:

G.H. (m):

Q:

G.R.:

Location:

HOWARD EAST (BORG)

Field Temp °C:

Field pH:

Field Cond µS/cm<sup>-1</sup>:

RSP:

Project No.:

RMD 5535

ANALYSIS - PHYSICAL

<input type="checkbox"/> pH	[4500-H+B]	7.0	<input type="checkbox"/> Colour (Hazen units)	[2120B]
<input type="checkbox"/> Electrical conductivity (microsiemens/cm at 25°C)	[2510B]	328	<input type="checkbox"/> Turbidity (NTU's)	[2130B]
<input type="checkbox"/> Total dissolved solids (mg L <sup>-1</sup> - dried at 180°C)	[2540C]	207	<input type="checkbox"/> Suspended solids (mg L <sup>-1</sup> )	[2540D]

ANALYSIS - CHEMICAL (mg L<sup>-1</sup>)

<input type="checkbox"/> Sodium, Na	[3111B]	2	<input type="checkbox"/> Chloride, Cl	[4500-Cl <sup>-</sup> B]	4
<input type="checkbox"/> Potassium, K	[3111B]	1	<input type="checkbox"/> Sulphate, SO <sub>4</sub>	[G]	10
<input type="checkbox"/> Calcium, Ca	[3111D]	35	<input type="checkbox"/> Nitrate, NO <sub>3</sub>	[4500-NO <sub>3</sub> <sup>-</sup> B]	<1
<input type="checkbox"/> Magnesium, Mg	[3111B]	21	<input type="checkbox"/> Bicarbonate, HCO <sub>3</sub>	[2320B]	219
<input type="checkbox"/> Iron, (total) Fe	[3111B]	0.1	<input type="checkbox"/> Carbonate, CO <sub>3</sub>	[2320B]	0
<input type="checkbox"/> Total Hardness (as CaCO <sub>3</sub> ) Calculation	[2340B]	174	<input type="checkbox"/> Hydroxide, OH	[2320B]	0
<input type="checkbox"/> Total Hardness (as CaCO <sub>3</sub> ) Titration	[2340C]		<input type="checkbox"/> Fluoride, F	[4500-F <sup>-</sup> C]	0.1
<input type="checkbox"/> Total Alkalinity (as CaCO <sub>3</sub> )	[2320B]	180	<input type="checkbox"/> NaCl (calc. from chloride)		7
<input type="checkbox"/> Silica, SiO <sub>2</sub>	[4500-Si D]	43	<input type="checkbox"/> Dissolved Oxygen	[4500-O-C]	

ANALYSIS - ADDITIONAL (mg L<sup>-1</sup>)

<input type="checkbox"/> Copper, Cu	[3111B]		<input type="checkbox"/> Manganese, Mn	[3111B]		<input type="checkbox"/> Zinc, Zn	[3111B]
<input type="checkbox"/>			<input type="checkbox"/>			<input type="checkbox"/>	

❖ U/S DENOTES UNSUITABLE FOR ANALYSIS

C1

32019

95-96/1359

# 10

❖ I/S DENOTES INSUFFICIENT SAMPLE

❖ F DENOTES FILTRATE ANALYSIS

❖ T DENOTES TOTAL ANALYSIS

This report relates specifically to the "sample tested as received".

DATE: 1 JUL 1996

The test methods used (denoted within brackets) refer to the 1992 18th edition of "Standard Methods for the examination of Water and Wastewater", A.P.H.A. Except [G] which refers to the method of R. Goguel, Anal. Chem. 1969, 41, 1034.

CHECKED: *DM*

SIGNATORY: *E. G.*

Boxes marked thus indicate:



Levels are within the limits as quoted in the "Guidelines for Drinking Water Quality in Australia". 1987 N.H. & M.R.C. and the A.W.R.C.



Levels exceed non-health related limits.



Levels exceed health related limits

RECEIVED

02 JUL 1996

P.A.W.A. - W.R.D.