



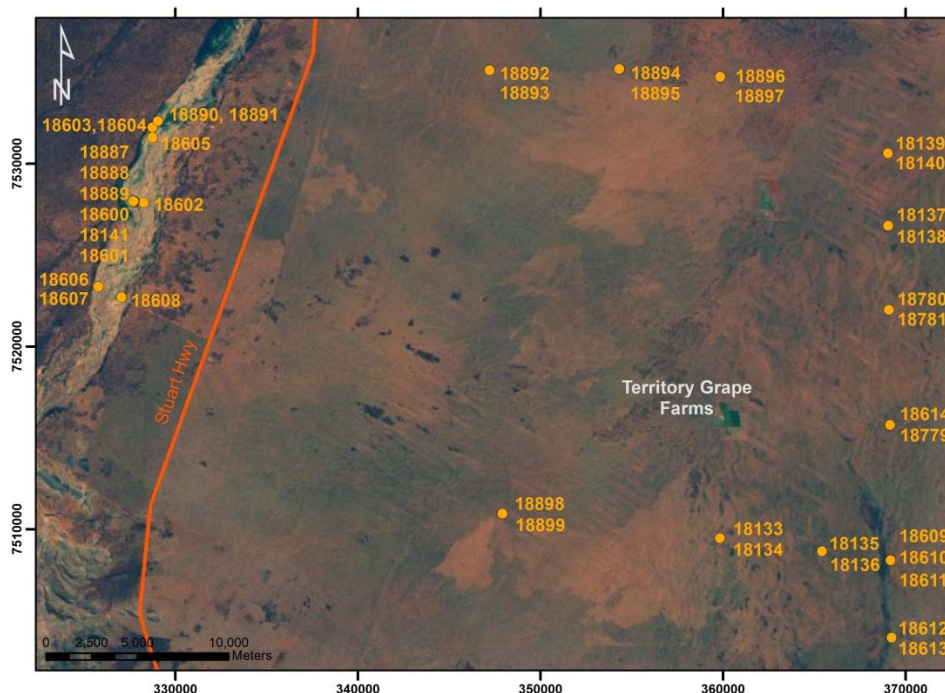
An Australian Government Initiative

Groundwater Education Investment Fund Project

Borehole Infrastructure Report

Borehole Type	Piezometer	GPS Easting	(MGA-94 Zone 53)	327735
Unique Well ID	18600	GPS Northing		7527883
Completion Date	11 May 2011	Location		Pine Hill Station, NT
Drilled By	NRETAS	Installed By		NRETAS
Monument Type	Round-White-Swing Top	Depth Drilled		5.1 m
Monument Diameter/Width	169 mm	Drilled Diameter/Method		200 mm, Air Jetted
Development Details	Airlift 0.8 L/s			
Project Comments: 18600 is located within the Woodforde River channel, Ti Tree Basin, NT.				

Bore ID	Casing Size (mm)/ Type	TOC (mAHD)	Casing Depth (mBGL)		Screen Size (mm)/ Aperture (mm)/ Type	Cement (mBGL)		Screen Depth (mBGL)		SWL (mTOC)
	150/Steel		-1.0	3.5	NA	0	2.85	NA	NA	NA
18600	100/PVC12	595.157	-0.95	5.0	100/1/PVC	0	3.5	3.5	4.0	3.26

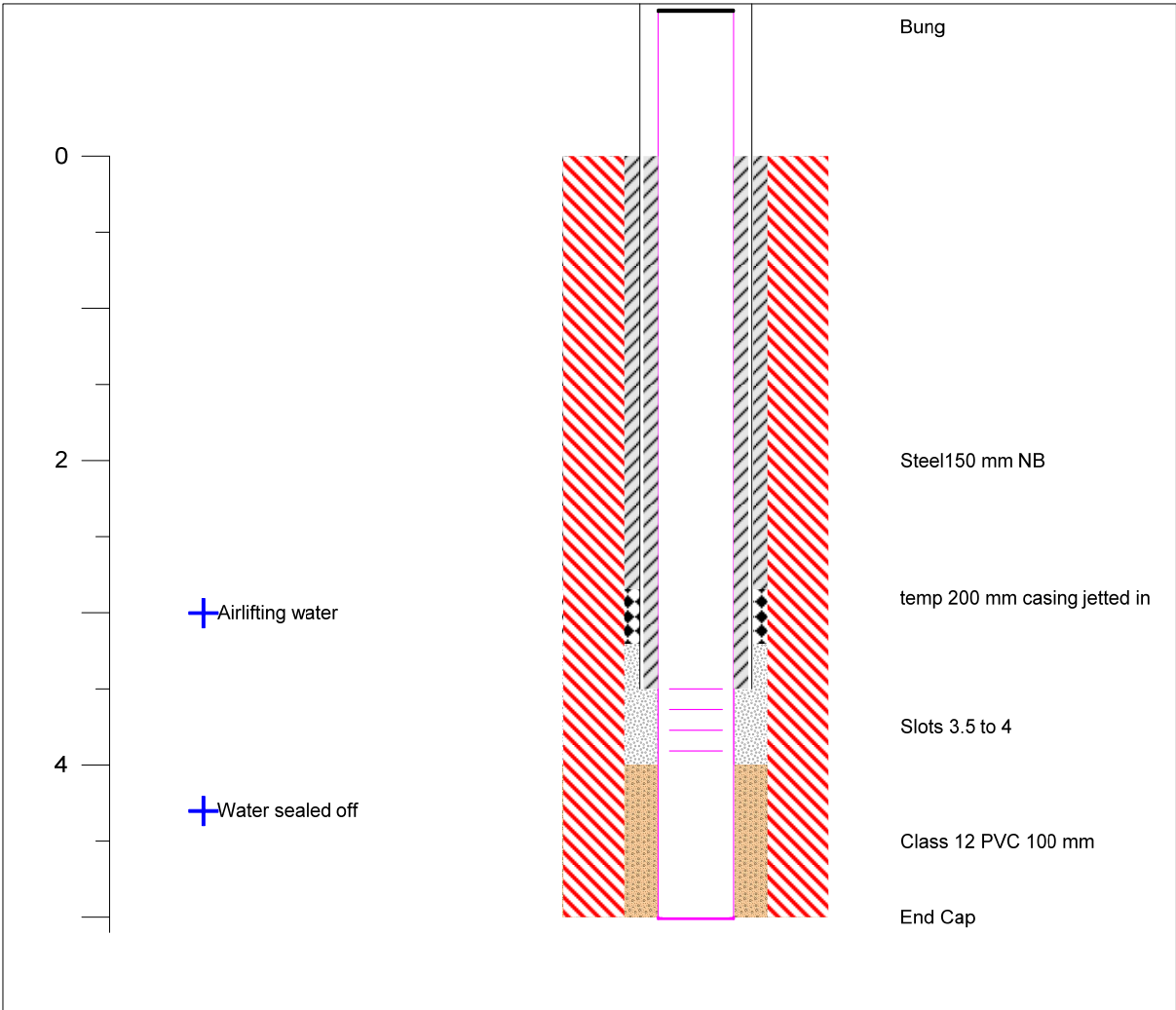


Map of Ti Tree Super Science Piezometer Locations, Pine Hill Station, NT.

Note* Appendix includes Well Completion, Lithology and Geophysical Logs, Hydraulic Test and Chemical Analysis.

Infrastructure Report prepared by:	Contact Details:	Checked by: Prof Peter Cook
	stephanie.villeneuve@flinders.edu.au Office: 08 8201 2724	

Well Completion Log



Page 1 of 1

Date Start 10/05/2011

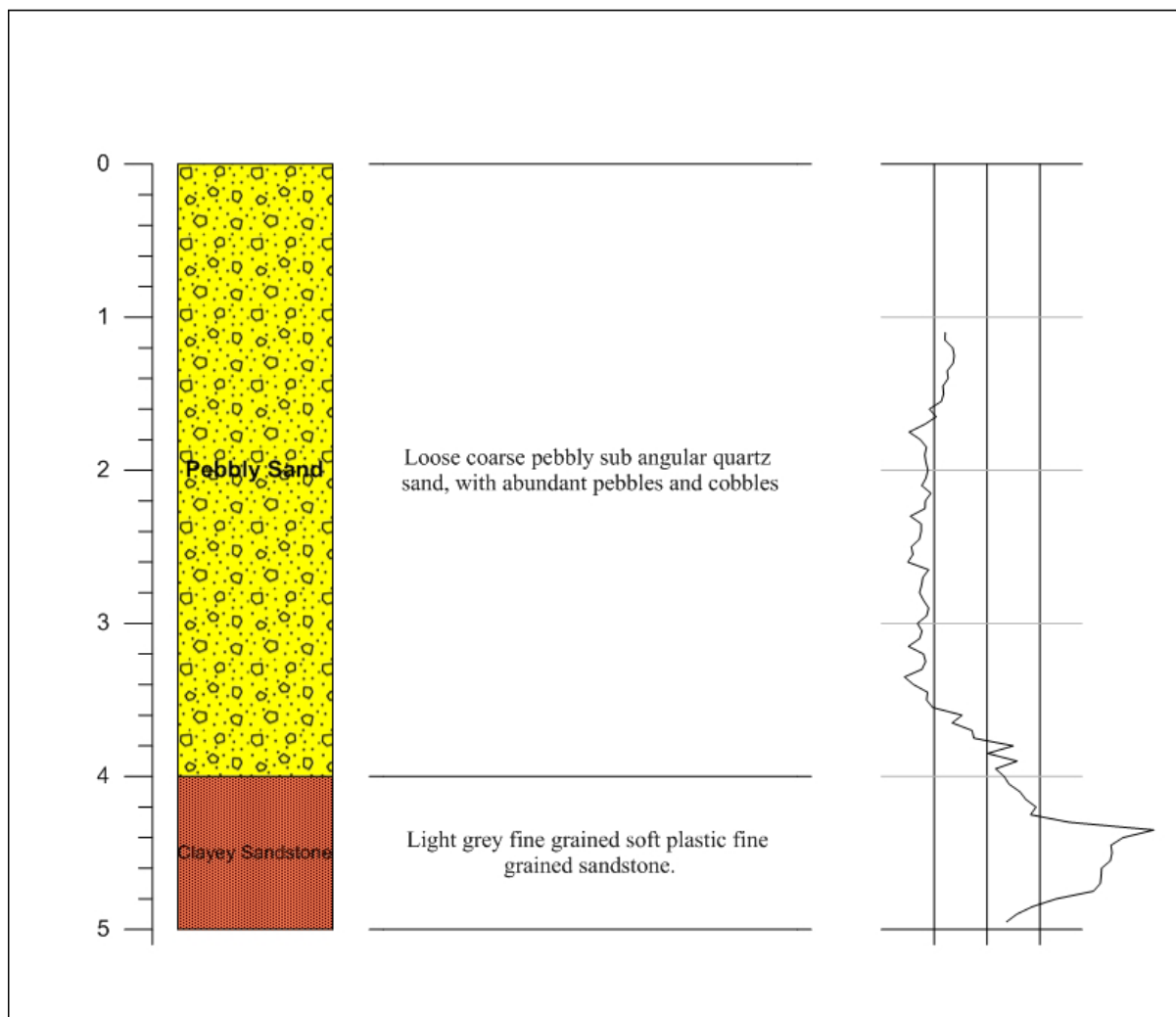
Completed 11/05/2011

Contractor NRETAS

Construction Legend

Steel	Cement	End Cap
PVC	Gravel Pack	Bentonite
Slots	Lock Cap	Creek Sand
Hole	Bung	

Lithology Log



Page 1 of 1

Air Lift Yield L/s 0.8

Date Start 10/05/2011 Electrical Conductivity μ Siemens/cm 87

Completed 11/05/2011 Standing Water Level m BGL 1.4

Contractor NRETAS

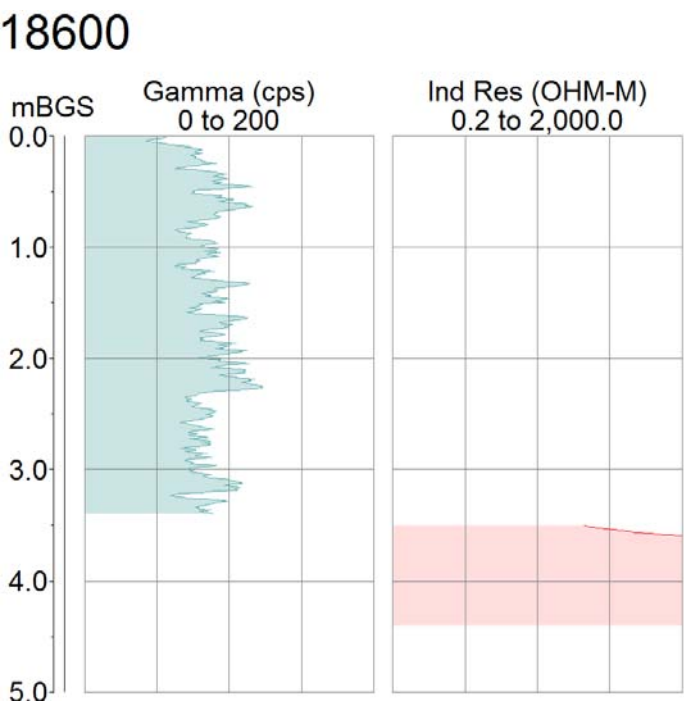
Status Piezometer

Gamma cps

Depth of casing at logging 5m

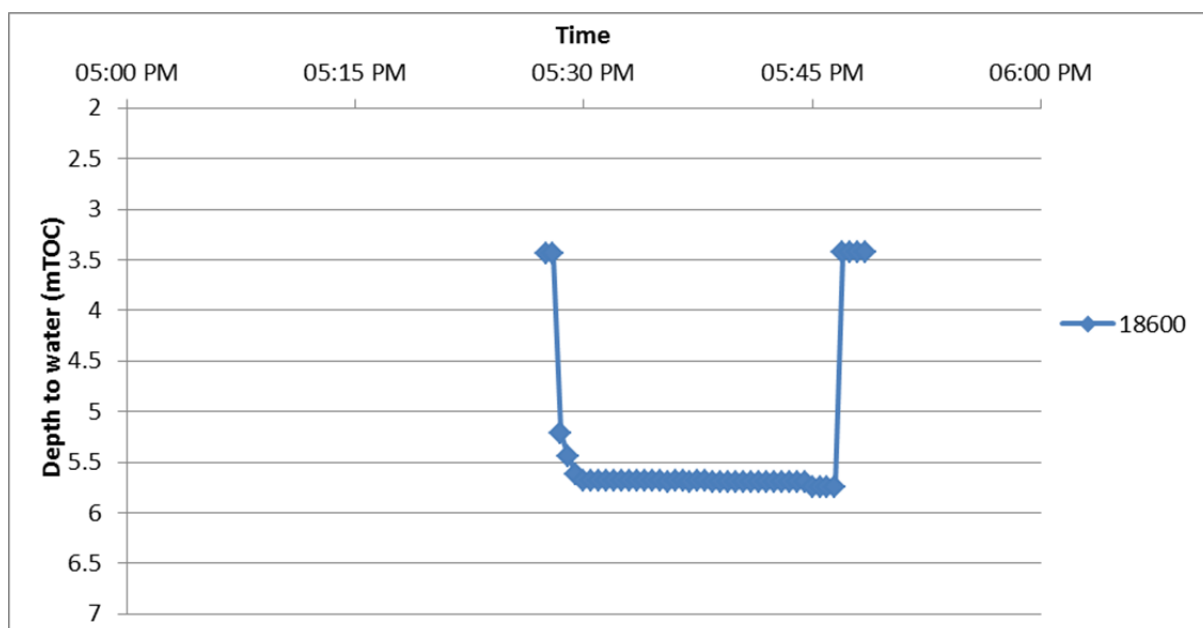
Geophysical Logs

The portable Mount Sopris logging system was used to collect geophysical data from bore 18600. The 2PGS probe was used to collect natural gamma measurements, and the 2PIA probe was used to measure conductivity/induced resistivity.



Pumping Test

A pumping test was performed on piezometer 18600 on 10/08/2012 by attaching a level logger to a submersible Whale pump, lowering the pump to a depth of 6 mTOC and using a flow rate of 6.3 L/min. The results of the test are presented below. The report author may be contacted for the full data set.



Chemical Analysis

Basic chemical analysis of the dissolved solutes and concentration of ions in the borehole was performed. The testing also included hydrogen ion activity (pH) and fluid electrical conductivity (EC). Data from the chemical analysis is shown below.

Well ID	Date Sampled	SWL	Field Parameters				Laboratory Analyses							
		m TOC	pH	EC μS/cm	Temp °C	Alkalinity mg/L CaCo ³	Ca ²⁺ mg/L	K ⁺ mg/L	Mg ²⁺ mg/L	Na ⁺ mg/L	Si mg/L	Cl ⁻ mg/L	NO ₃ ⁻ mg/L	SO ₄ ²⁻ mg/L
18600	30/08/2011	3.26	7.12	79.3	22.6	33.3	4.15	3.4	2.32	4.41	8.7	3.5	0.06	1.2