



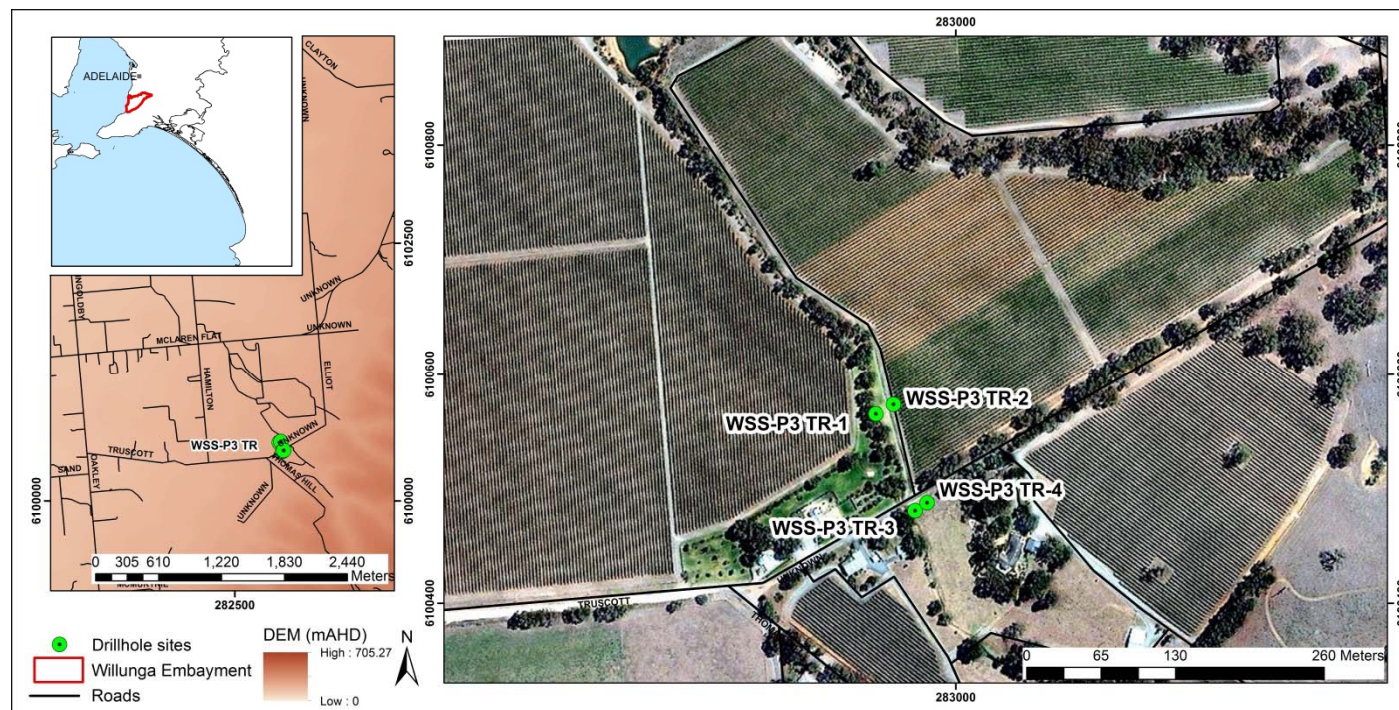
An Australian Government Initiative

# Groundwater Education Investment Fund Project

## Borehole Infrastructure Report

Borehole Type		Piezometer Monitoring Bore	Location	Willunga Super Science Site
Unique Well ID		WSS-P3TR-1	Installed By	Town & Country Drilling Services
Completion Date		02/08/2012	Depth Installed	10.13 mBGS
Drilled By		Town & Country Drilling Services	Depth Drilled	10.2 mBGS
Monument Type		Flush mounted	Drilled Diameter/Method	150 mm/Auger
Monument Diameter/Width		165 mm	Screen Depth	8.13-10.13 mBGS
T.O.M. offset from G.L. (Top of Open Monument)		0 m	Screen Size/Aperture/Type	50 mm/slotted/PVC 18
PVC Casing to T.O.M offset		-0.089 m	Level of Bentonite	7-7.5 mBGS
Ground Elevation (mAHD)		162.881	Casing Size/Type	50 mm/PVC 18
GPS Easting	(MGA-94 Zone 54)	282930	SWL after Development	7.46 mTOC
GPS Northing		6100565	Development Details	Air vacuum, submersible pump

**Project Comments:** WSS-P3TR-1 is a single piezometer monitoring bore, adjacent to Pedler Creek in the Gemtree vineyard on Truscott Road, McLaren Flat.

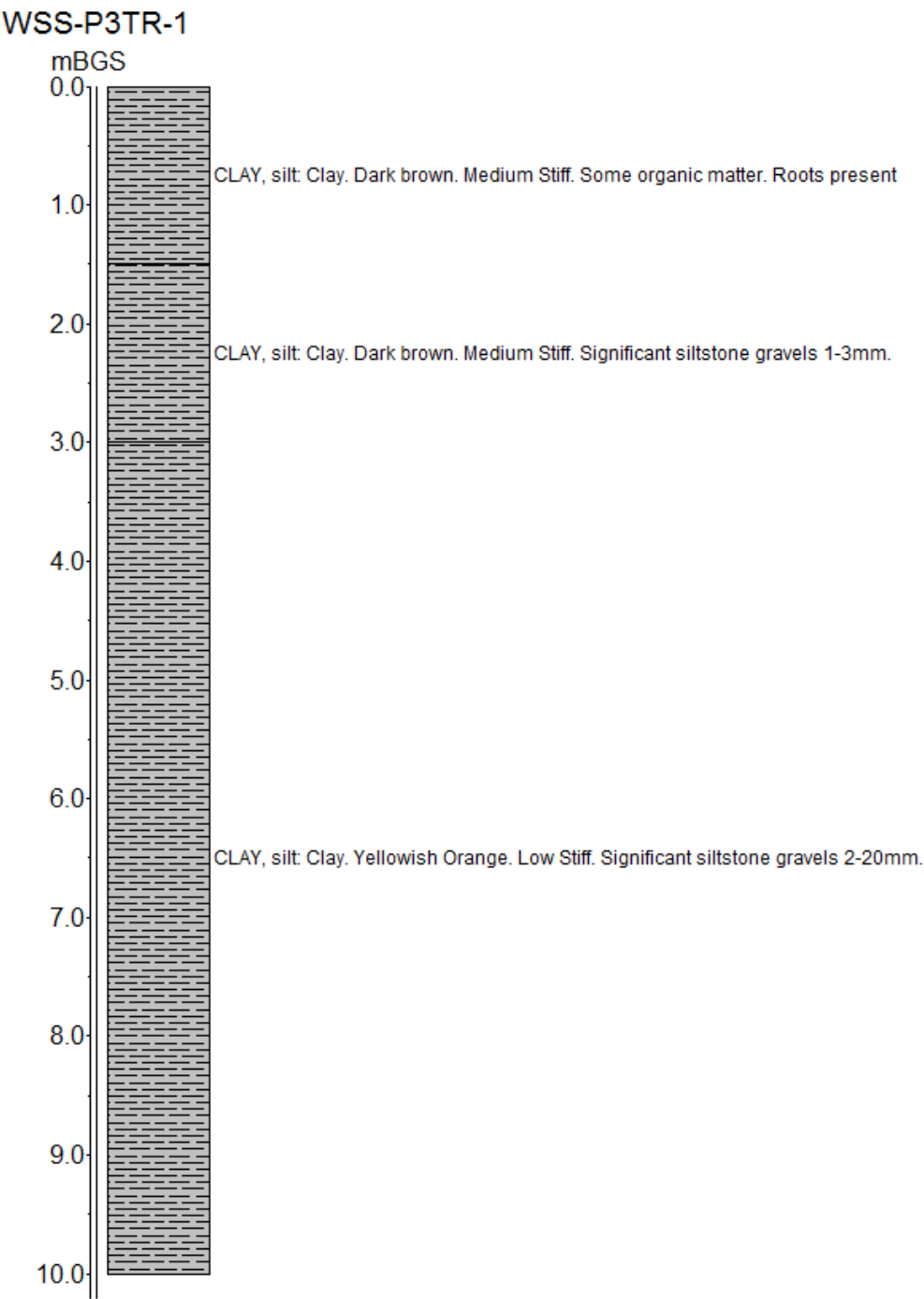


Map of Willunga Super Science Project Shallow Monitoring Well Sites

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

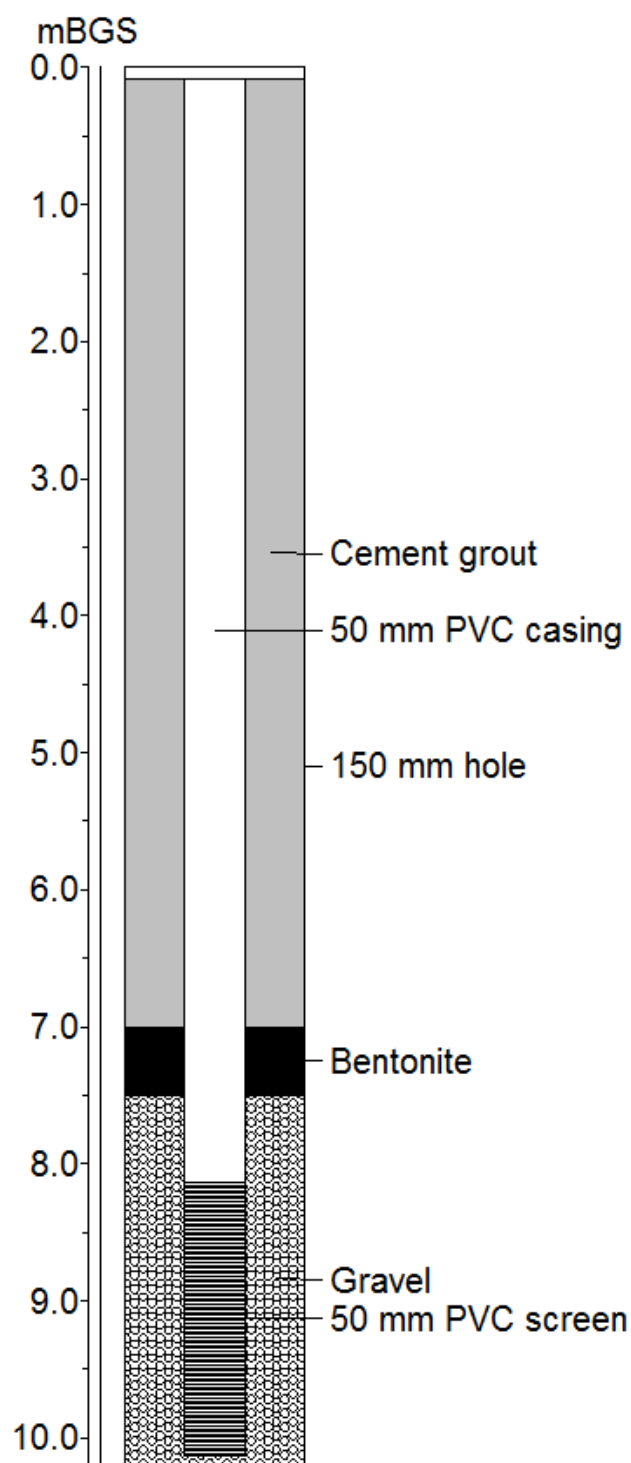
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# Lithology



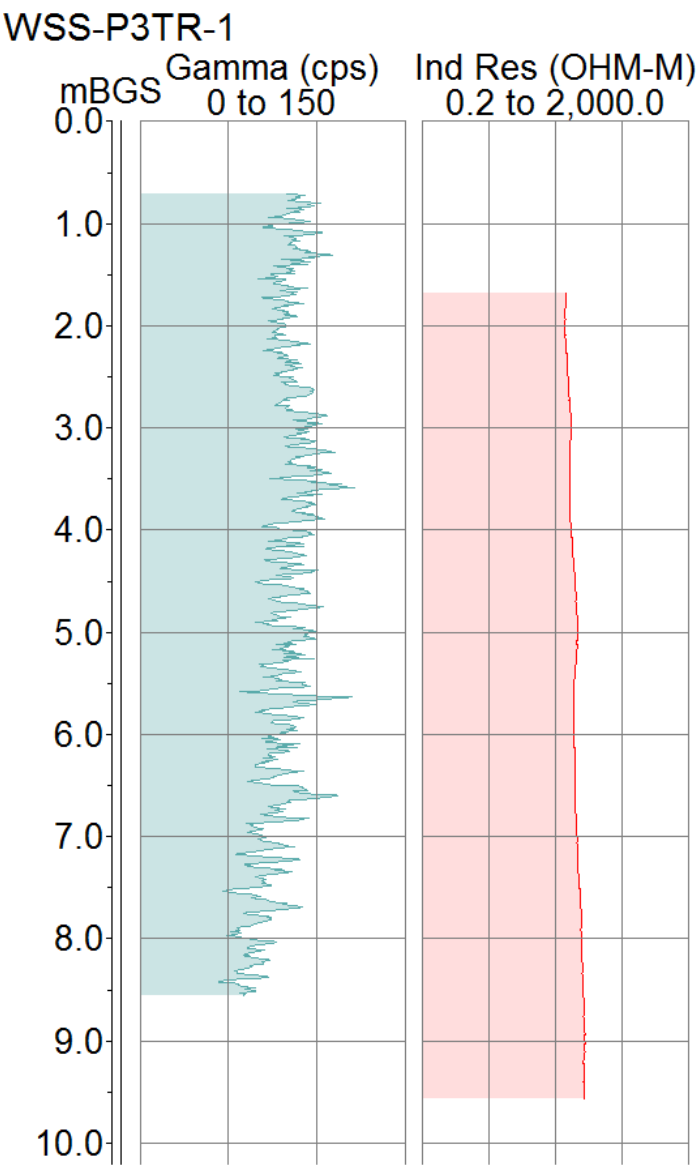
# Well Completion Log

WSS-P3TR-1



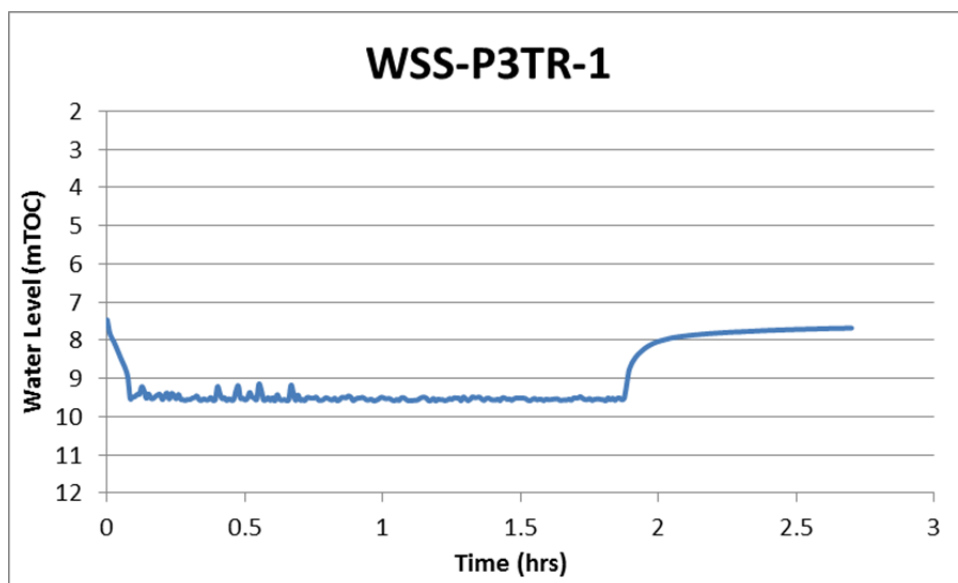
# Geophysical Logs

The portable Mount Sopris logging system was used to collect geophysical data from bore WSS-P3TR-1. 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 WSS-P3TR-1 on 31/10/2012 with a water level logger and a submersible pump using a flow rate of 2.6 L/min. The results of the test are presented below. The report author may be contacted for the full data set.



## Chemical Analysis

The results of major ion chemistry on WSS-P3TR-1 are presented below, along with chemical parameters measured in the field.

Well ID	Date Sampled	SWL	Field Parameters				Laboratory Analyses @ CSIRO ASU											
			pH	EC	Temp	Alkalinity	pH	E.C.	Total Alkalinity	F <sup>-</sup>	Cl <sup>-</sup>	Br <sup>-</sup>	NO <sub>3</sub> <sup>-</sup>	SO <sub>4</sub> <sup>=</sup>	Ca	K	Mg	
		mTOC		μS/cm	°C	meq/L		μS/cm	meq/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
WSS-P3TR-1	31/10/2012	7.46	6.5	2563.0	16.7	6.4	7.1	2724	6.7	0.2	648	1.6	0.7	54	102	8.76	96	
							Na	S	Al	As	B	Cd	Co	Cr	Cu	Fe	Mn	
							mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
							264	15.5	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	0.271	<0.05	
							Mo	Ni	P	Pb	Sb	Se	Si	Sr	Zn			
							mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L			
							<0.05	<0.05	<0.1	<0.05	<0.1	<0.05	4.89	0.523	<0.05			