



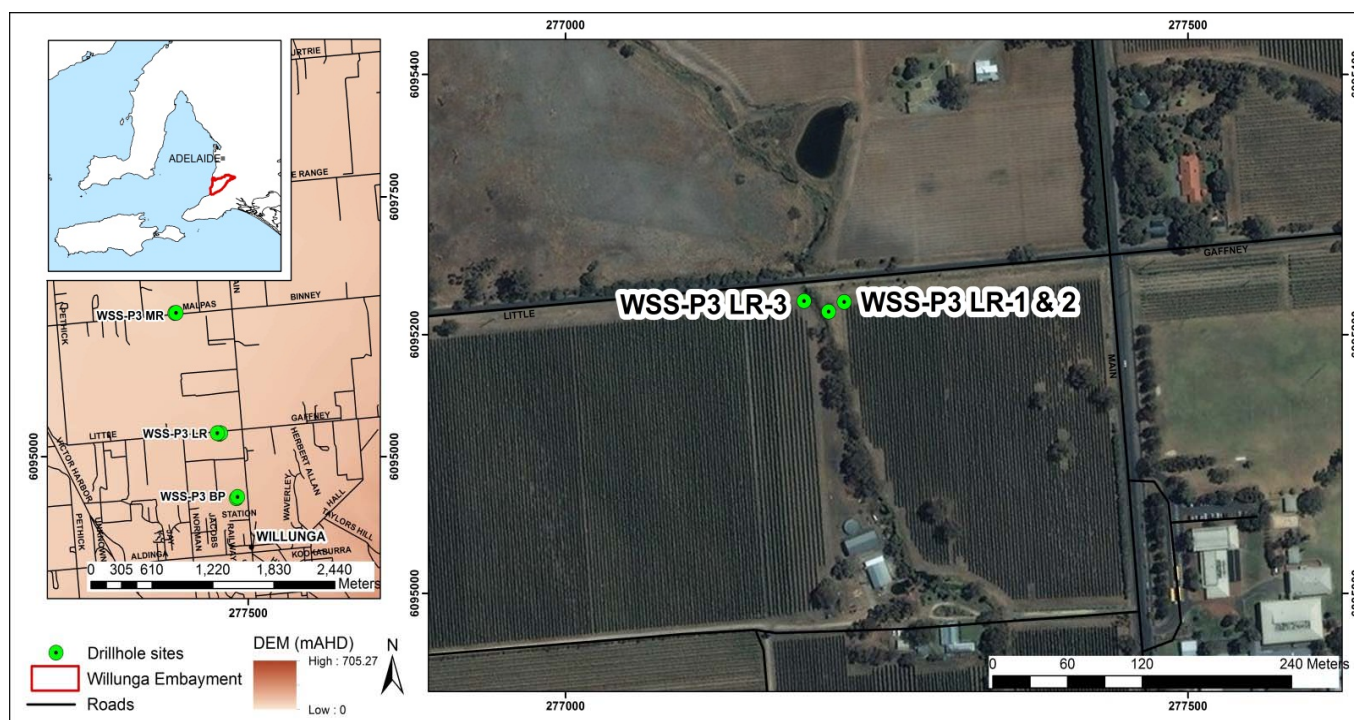
An Australian Government Initiative

Groundwater Education Investment Fund Project

Borehole Infrastructure Report

Borehole Type		Piezometer Monitoring Bore	Location	Willunga Super Science Site
Unique Well ID		WSS-P3LR-2	Installed By	Town & Country Drilling Services
Completion Date		06/08/2012	Depth Installed	9.08 mBGS
Drilled By		Town & Country Drilling Services	Depth Drilled	9.1 mBGS
Monument Type		Flush mounted	Drilled Diameter/Method	150 mm/Auger
Monument Diameter/Width		165 mm	Screen Depth	7.08-9.08 mBGS
T.O.M. offset from G.L. (Top of Open Monument)		0 m	Screen Size/Aperture/Type	50 mm/slotted/PVC
PVC Casing to T.O.M offset		-0.15 m	Level of Bentonite	6.0-6.5 mBGS
Ground Elevation (mAHD)		82.129	Casing Size/Type	50 mm/PVC
GPS Easting	(MGA-94 Zone 54)	277224	SWL after Development	2.61 mTOC
GPS Northing		6095225	Development Details	Air vacuumed/submersible pump

Project Comments: WSS-P3LR-2 is a single piezometer monitoring bore, located on Little Road, Willunga.



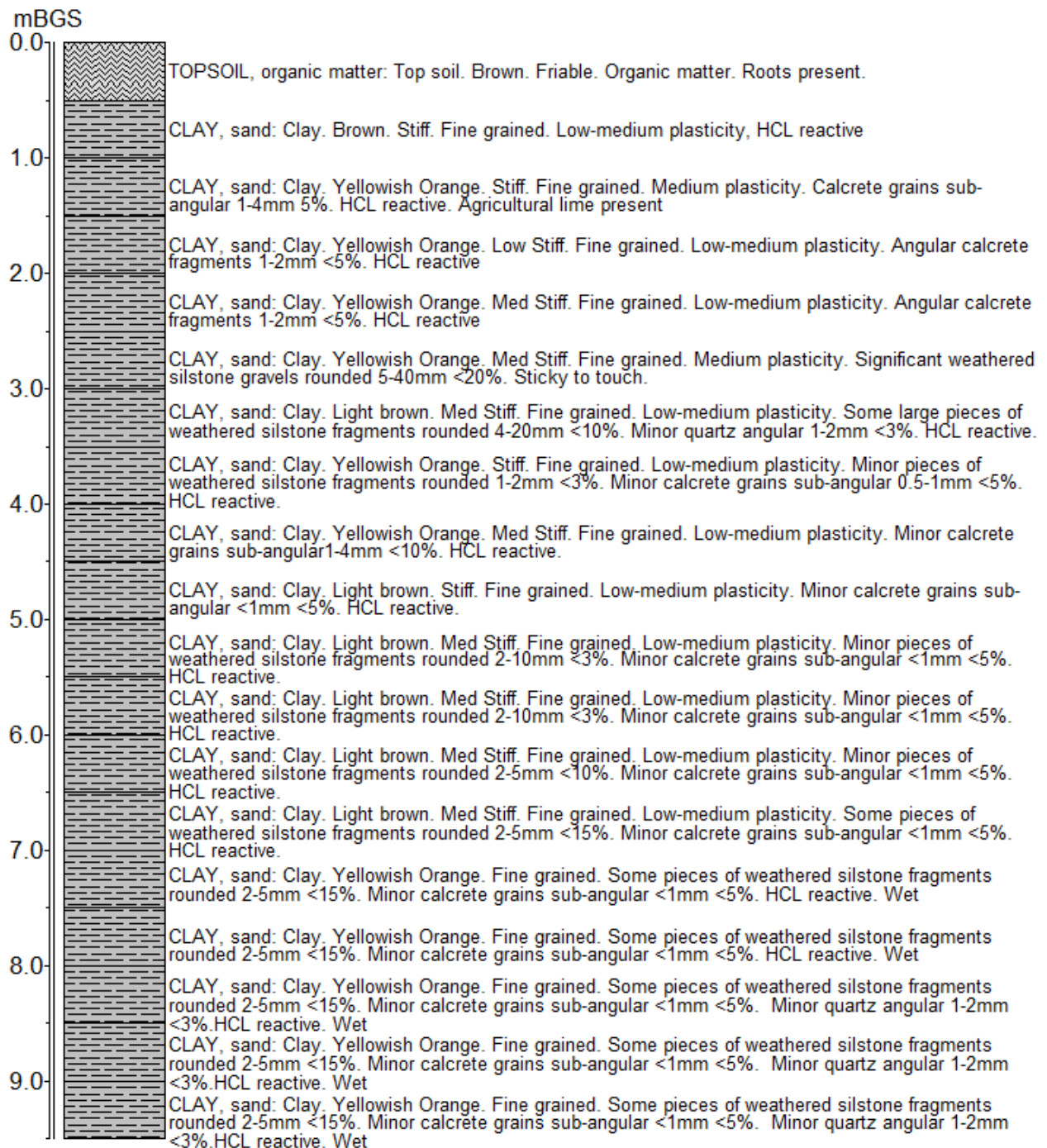
Map of Willunga Super Science Project Shallow Monitoring Well Sites

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

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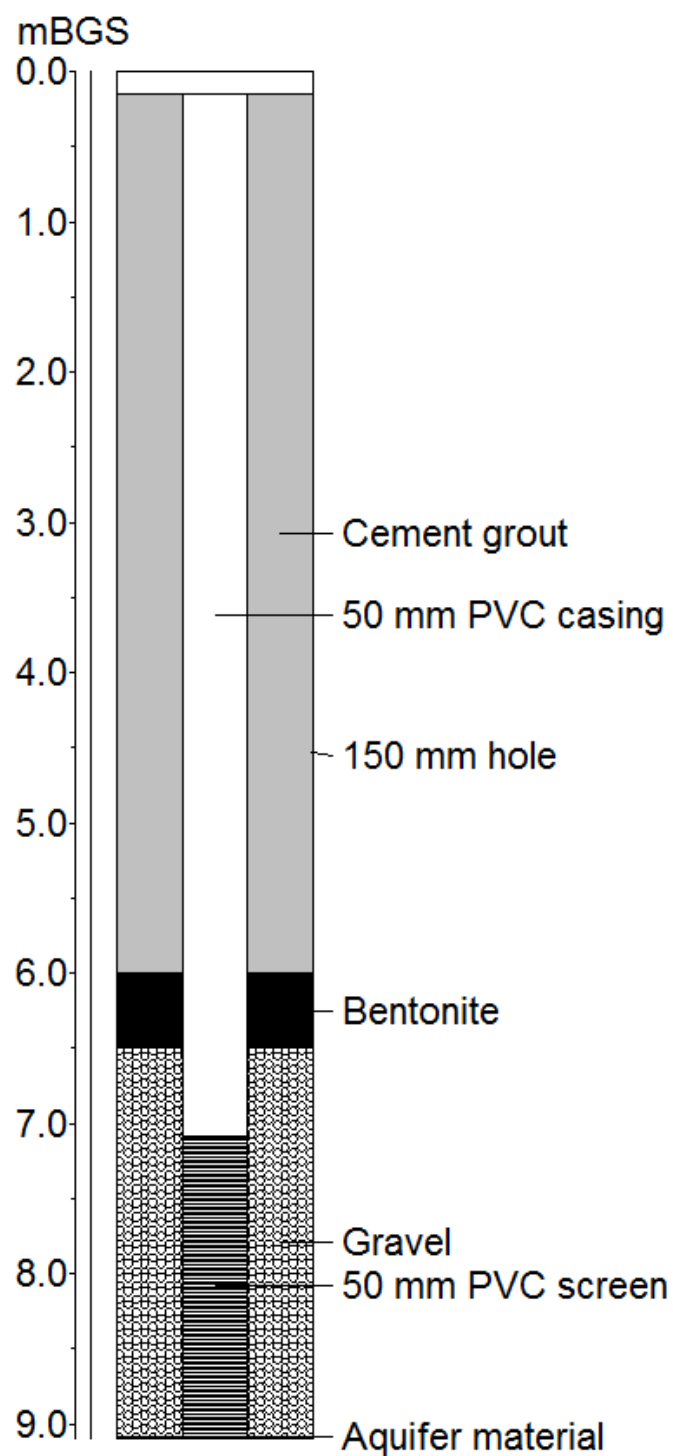
Lithology

WSS-P3LR-2



Well Completion Log

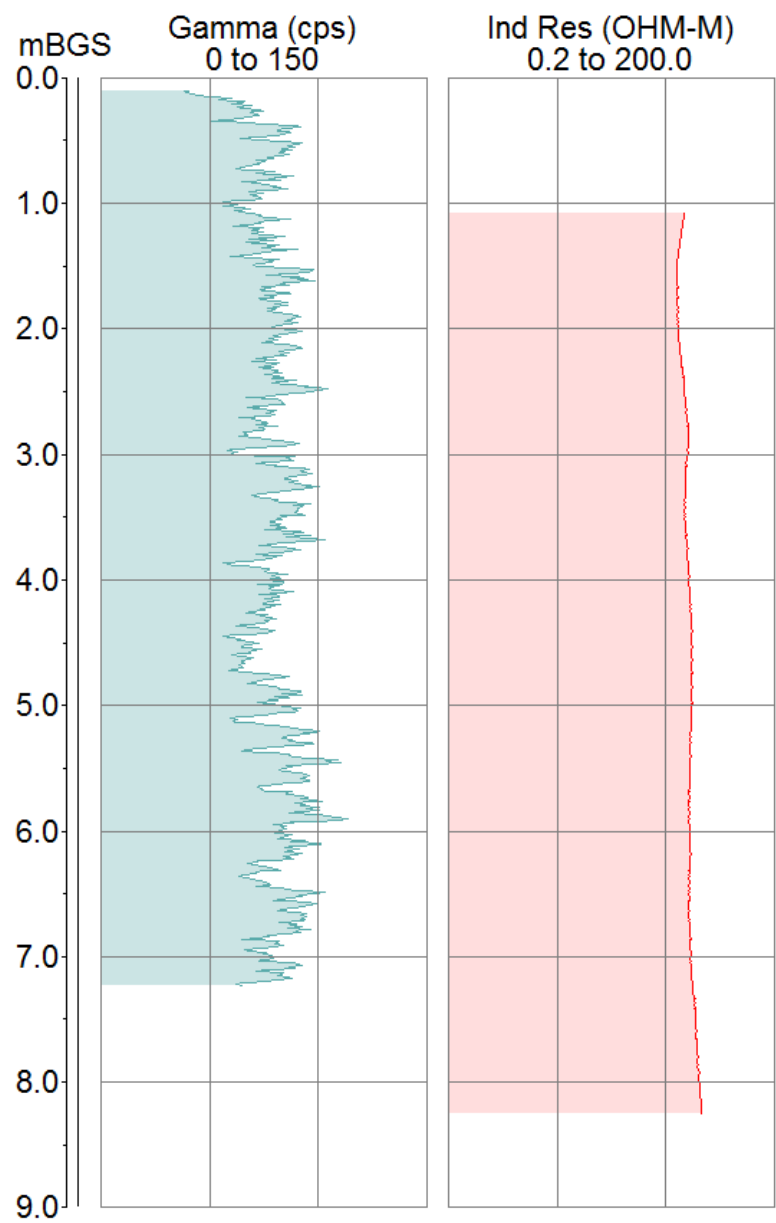
WSS-P3LR-2



Geophysical Logs

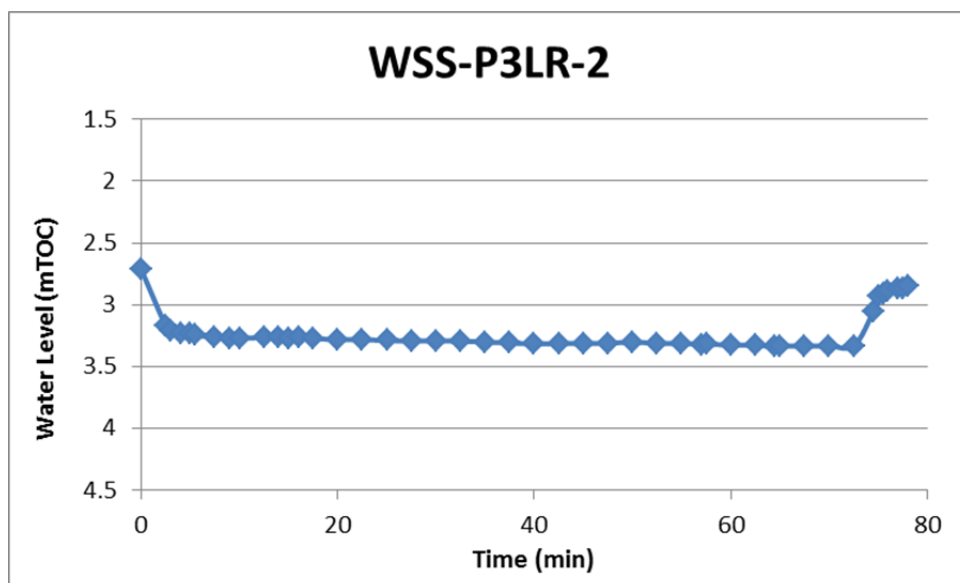
The portable Mount Sopris logging system was used to collect geophysical data from bore WSS-P3LR-1, which is 15 m from WSS-P3LR-2. The 2PGS probe was used to collect natural gamma measurements, and the 2PIA probe was used to measure conductivity/induced resistivity.

WSS-P3LR-1



Pumping Test

A pumping test was performed on piezometer WSS-P3LR-2 on 16/10/2012 with a water level logger and a submersible pump using a flow rate of 6.6 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-P3LR-2 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 ⁻	Cl ⁻	Br ⁻	NO ₃ ⁻	SO ₄ ⁼	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-P3LR-2	16/10/2012	2.61	6.99	2869	18.4	9.2	7.4	2782	9.5	0.5	623	1.7	2.0	76	92.9	4.66	325	
							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	mg/L
							65.3	21.3	<0.05	<0.05	0.299	<0.05	<0.05	<0.05	<0.05	<0.1	<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	8.33	1.38	<0.05			