



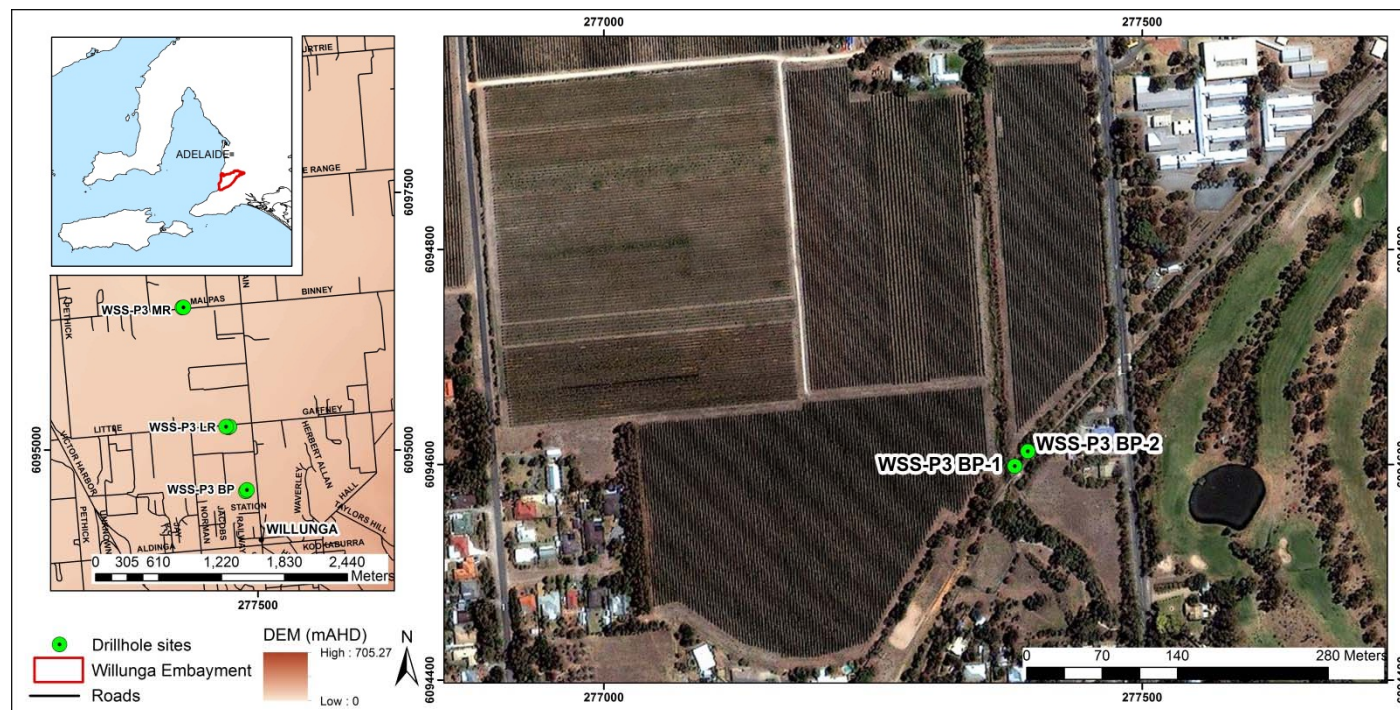
An Australian Government Initiative

Groundwater Education Investment Fund Project

Borehole Infrastructure Report

Borehole Type		Piezometer Monitoring Bore	Location	Willunga Super Science Site
Unique Well ID		WSS-P3BP-1	Installed By	Town & Country Drilling Services
Completion Date		02/08/2012	Depth Installed	22.39 mBGS
Drilled By		Town & Country Drilling Services	Depth Drilled	22.5 mBGS
Monument Type		Flush mounted	Drilled Diameter/Method	150 mm/Auger
Monument Diameter/Width		165 mm	Screen Depth	21.39-22.39 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		-0.056 m	Level of Bentonite	20.5-21 mBGS
Ground Elevation (mAHD)		101.756	Casing Size/Type	50 mm/PVC 18
GPS Easting	(MGA-94 Zone 54)	277382	SWL after Development	15.83 mTOC
GPS Northing		6094598	Development Details	Air vacuum, submersible pump

Project Comments: WSS-P3BP-1 is a single piezometer monitoring bore, located on the bike path in Willunga, west of Main Rd.



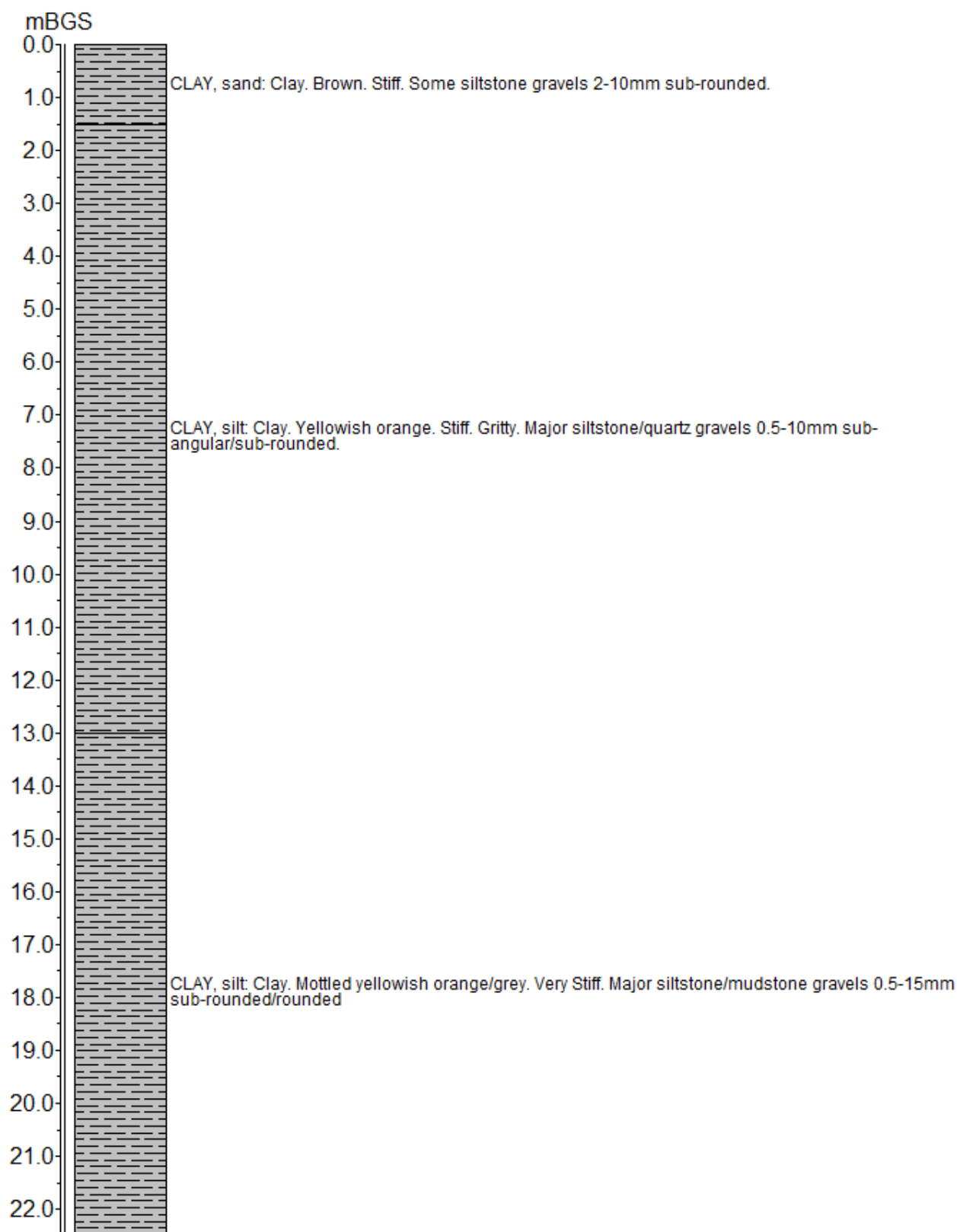
Map of Willunga Super Science Project Shallow Monitoring Well Sites

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

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Lithology

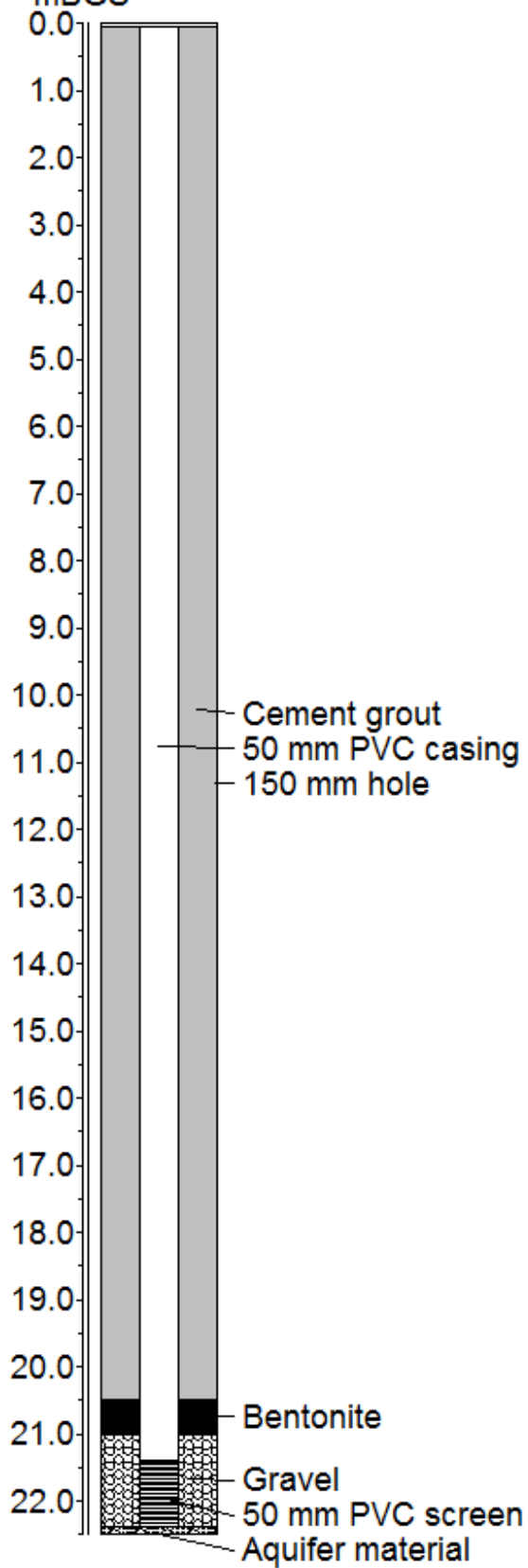
WSS-P3BP-1



Well Completion Log

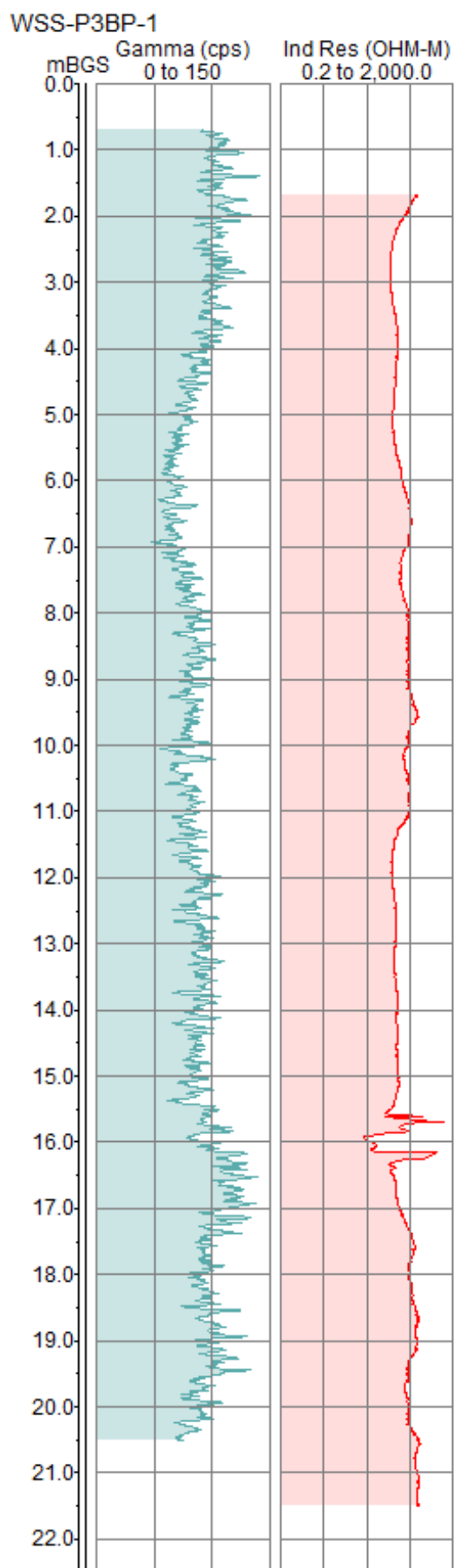
WSS-P3BP-1

mBGS



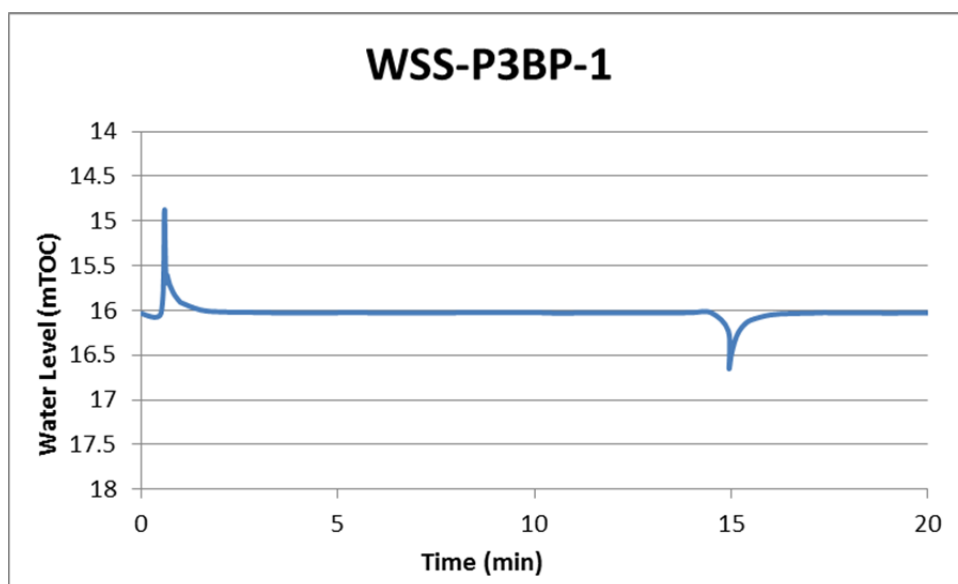
Geophysical Logs

The portable Mount Sopris logging system was used to collect geophysical data from bore WSS-P3BP-1. The 2PGS probe was used to collect natural gamma measurements, and the 2PIA probe was used to measure conductivity/induced resistivity.



Slug Test

A slug test was performed on piezometer WSS-P3BP-1 on 21/11/2012 with a water level logger and a 1 m long physical slug (volume: 1.25 L) that was rapidly lowered below the water level and subsequently removed. 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-P3BP-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 ⁻	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	mg/L
WSS-P3BP-1	2/11/2012	15.83	6.6	2505.0	18.5	6.7	7.5	2559	7.0	0.3	574	1.4	3.5	67	114	6.51	68.3	
							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	
							282	19.7	<0.05	<0.05	<0.1	<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	6.8	1.44	<0.05			