



An Australian Government Initiative

# Groundwater Education Investment Fund Project

## Borehole Infrastructure Report

<b>Borehole Type</b>		Piezometer Monitoring Bore	<b>Location</b>	Wellington Research Station
<b>Unique Well ID</b>		WRS02	<b>Installed By</b>	Water Research Laboratory, UNSW
<b>Completion Date</b>		7th Dec 2009	<b>Depth Installed</b>	17 m
<b>Drilled By</b>		NSW Office of Water	<b>Depth Drilled</b>	17 m
<b>Monument Type</b>		Round-Blue-Swing Top	<b>Drilled Diameter/Method</b>	168 mm, Rotary Air
<b>Monument Diameter/Width</b>		140 mm	<b>Screen Depth</b>	9.5-11m
<b>T.O.M. offset from G.L. (Top of Open Monument)</b>		1.030 m	<b>Screen Type</b>	Slotted PVC
<b>PVC Casing to T.O.M. offset</b>		-320 mm	<b>Level of Bentonite</b>	7-8 m
<b>Elevation (AHD71)</b>		287.764	<b>Casing Size/Type</b>	50mm Class 18
<b>GPS Easting</b>	(GDA94 Zone 55 Referenced to TS7236)	686858.334	<b>SWL after Development</b>	3.04 m
<b>GPS Northing</b>		6394253.763	<b>Development Details</b>	Air Lifted for 3 hrs several days after installation.
<b>Project Comments:</b> WRS02 is a single piezometer monitoring bore, strategically located in the alluvial ground alongside the river.				



WRS02 detailed elevation point



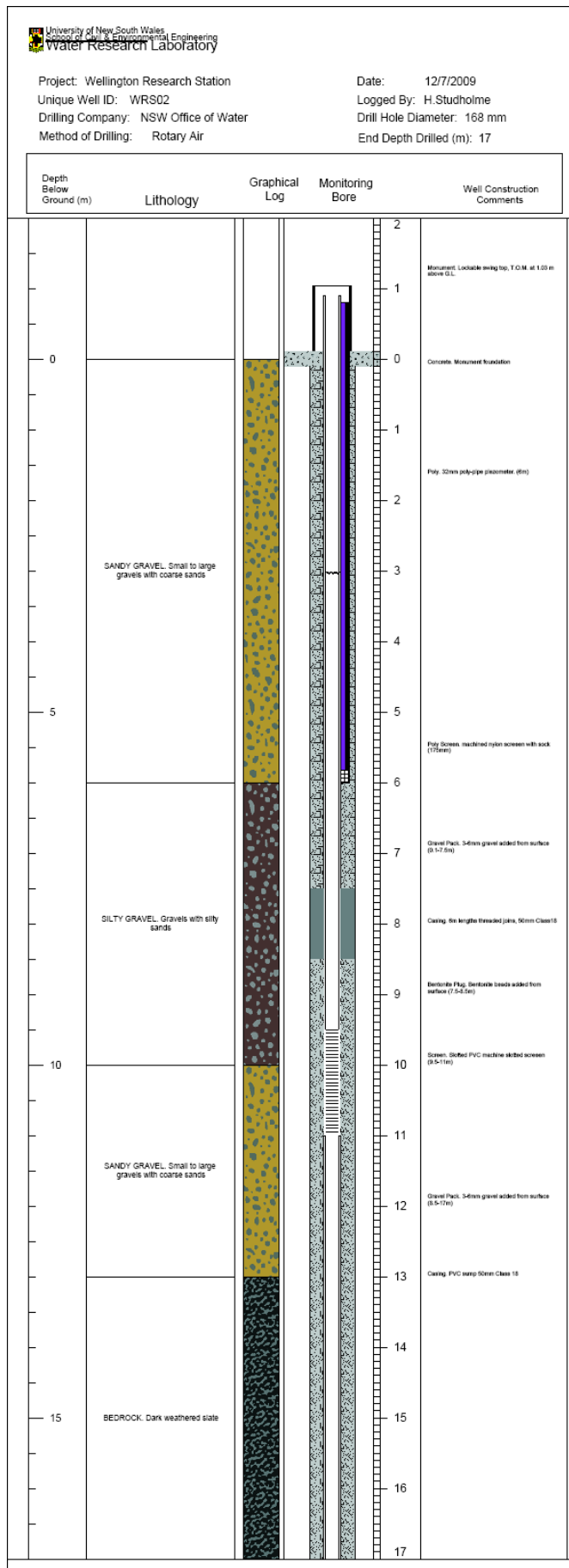
Map of Wellington Research Station

An Appendix includes Stratigraphic Bore Log, Geophysical Log, Slug Test & Chemical Analysis.

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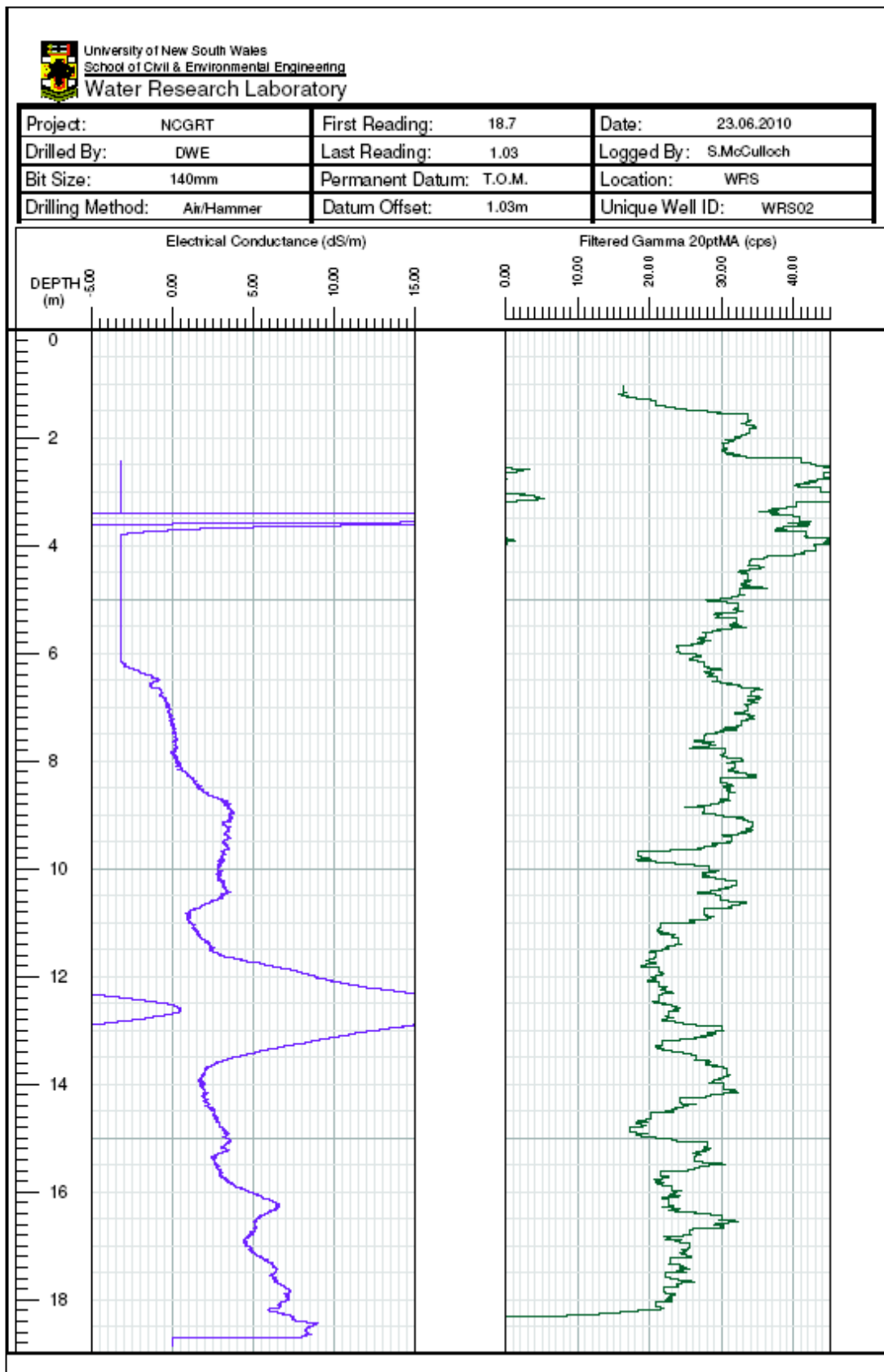
# Stratigraphic Bore Log

Samples of the drill cuttings were obtained during drilling of the borehole and stored for future reference. Standard borehole information is documented in the bore log below.



# Geophysical Log

The portable Geovista logging system was used to collect geophysical data from 24m to surface. The Electrical Conductivity sonde (EM39) is used to obtain quantitative information on dissolved salts and apparent bulk conductivity information. The natural gamma sonde (NRGS) is predominantly used for qualitative evaluations of stratigraphic characteristics, argillaceous sediments and clay minerals. The Geophysical log for WRS02 is displayed below.



# Slug Test

A standard slug test was performed using a real-time water level logger and nitrogen to pressurize the borehole. The results of the slug test are shown graphically below. Full data sets are available from the report author.

