

Borehole No. **MW6**

Engineering Log - Piezometer

Sheet 2 of 3
Office Job No.: **ENVILCOV00315AH**

Client: **Valad Property Group**

Date started: **20.5.2008**

Principal:

Date completed: **20.5.2008**

Project: **ESA 630-726 Princess Highway Tempe**





Logged by: **NC**

Borehole Location: **Kennards Self Storage**

Checked by: **BS**

drill model & mounting: Truck mounted drill rig Easting: slope: -90° R.L. Surface:
hole diameter: Northing: bearing: datum:

drilling information							material substance								
method	penetration			support	water	notes samples, tests, etc	well details	RL	depth metres	graphic log	classification symbol	material soil type: plasticity or particle characteristics, colour, secondary and minor components.	moisture condition	consistency/ density index	structure and additional observations
	1	2	3												
ADT					E								M	S	
Air Blade													M	F	RESIDUAL.
													M	F	
													M	F	
					E								D	L	
									7						
					</										

method AS auger screwing* AD auger drilling* RR roller/tricone W washbore CT cable tool DT diatube B blank bit V V bit T TC bit TBX Tubex *bit shown by suffix e.g. ADT	support C casing N nil penetration 1 2 3 4  no resistance ranging to refusal water  10/1/98 water level on date shown  water inflow  water outflow	notes, samples, tests U ₅₀ undisturbed sample 50mm diameter D disturbed sample N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone P pressure meter Bs bulk sample R refusal E environmental sample PID PID measurement WS water sample PZ piezometer ALT air lift test	classification symbols and soil description based on unified classification system moisture D dry M moist W wet W _p plastic limit W _L liquid limit	consistency/density index VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense
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Borehole No. **MW6**

Sheet 3 of 3
Office Job No.: **ENVILCOV00315AH**

Engineering Log - Piezometer

Client: **Valad Property Group**

Date started: **20.5.2008**

Principal:





Date completed: **20.5.2008**

Project: **ESA 630-726 Princess Highway Tempe**

Logged by: **NC**

Borehole Location: **Kennards Self Storage**

Checked by: **BS**

drill model & mounting: Truck mounted drill rig				Easting:		slope: -90°		R.L. Surface:							
hole diameter:				Northing:		bearing:		datum:							
drilling information						material substance									
method	penetration			support	water	notes samples, tests, etc	well details	RL	depth metres	graphic log	classification symbol	material soil type: plasticity or particle characteristics, colour, secondary and minor components.	moisture condition	consistency/ density index	structure and additional observations
Air Blade	1	2	3						13			Gravelly SAND: Fine to medium grained, pale brown to brown. Gravel is medium grained, crushed weathered shale (moderate strength, grey and ironstone). (continued)	D	L	
									14						
									15						
									16			Borehole terminated at 15m			
									17						
									18						
method AS auger screwing* AD auger drilling* RR roller/tricone W washbore CT cable tool DT diatube B blank bit V V bit T TC bit TBX Tubex *bit shown by suffix e.g. ADT						support C casing N nil penetration 1 2 3 4  no resistance ranging to refusal water  10/1/98 water level on date shown  water inflow  water outflow		notes, samples, tests U ₅₀ undisturbed sample 50mm diameter D disturbed sample N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone P pressure meter Bs bulk sample R refusal E environmental sample PID PID measurement WS water sample PZ piezometer ALT air lift test				classification symbols and soil description based on unified classification system moisture D dry M moist W wet W _p plastic limit W _L liquid limit		consistency/density index VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense	

Borehole No. **MW7 / BH6**

Engineering Log - Piezometer

Sheet 1 of 2

Office Job No.: **ENVILCOV00315AH**

Client: **Valad Property Group**

Date started: **19.5.2008**

Principal:

Date completed: **19.5.2008**

Project: **ESA 630-726 Princess Highway Tempe**





Logged by: **NC**

Borehole Location: **Kennards Self Storage**

Checked by: **BS**

drill model & mounting: Truck mounted drill rig Easting: 229.7749 slope: -90° R.L. Surface: 13.73
hole diameter: Northing: 181.6385 bearing: datum:

drilling information							material substance								
method	penetration			support	water	notes samples, tests, etc	well details	RL	depth metres	graphic log	classification symbol	material soil type: plasticity or particle characteristics, colour, secondary and minor components.	moisture condition	consistency/ density index	structure and additional observations
	1	2	3												
ADT												ASPHALT Gravelly SAND: Fine to medium grained, brown to dark brown. Gravel is medium to coarse grained, fine to medium sand, dark brown.	M	L	FILL. PID: 657ppm.
					E			13	1			SAND: Medium to coarse grained, pale orange, white and pink coloured intervals, (crushed brick). Sandy CLAY: Low plasticity, dark brown to black, some medium gravels. Low oily odour.	D	L	PID: 258ppm.
					E			12	2			Sandy CLAY: Medium plasticity, pale brown, orange, yellow and grey. NO ODOUR.	D	S	PID: 418ppm.
					E			11	3			Gravelly SAND: Fine to medium grained, pale brown, gravel is medium grained, pale brown.	M	F	RESIDUAL. PID: 233ppm.
					E			10	4						PID: 48ppm.
					E			9	5			Slight oily odour.			PID: 1348ppm.
					E			8	6						

method AS auger screwing* AD auger drilling* RR roller/tricone W washbore CT cable tool DT diatube B blank bit V V bit T TC bit TBX Tubex *bit shown by suffix e.g. ADT	support C casing N nil penetration 1 2 3 4  no resistance ranging to refusal water  10/1/98 water level on date shown  water inflow  water outflow	notes, samples, tests U ₅₀ undisturbed sample 50mm diameter D disturbed sample N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone P pressure meter Bs bulk sample R refusal E environmental sample PID PID measurement WS water sample PZ piezometer ALT air lift test	classification symbols and soil description based on unified classification system moisture D dry M moist W wet Wp plastic limit WL liquid limit	consistency/density index VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense
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Borehole No. **MW7 / BH6**

Engineering Log - Piezometer

Sheet 2 of 2
Office Job No.: **ENVILCOV00315AH**

Client: **Valad Property Group**

Date started: **19.5.2008**

Principal:

Date completed: **19.5.2008**

Project: **ESA 630-726 Princess Highway Tempe**





Logged by: **NC**

Borehole Location: **Kennards Self Storage**

Checked by: **BS**

drill model & mounting: Truck mounted drill rig	Easting: 229.7749	slope: -90°	R.L. Surface: 13.73
hole diameter:	Northing: 181.6385	bearing:	datum:

drilling information							material substance								
method	penetration			support	water	notes samples, tests, etc	well details	RL	depth metres	graphic log	classification symbol	material soil type: plasticity or particle characteristics, colour, secondary and minor components.	moisture condition	consistency/ density index	structure and additional observations
	1	2	3												
ADT												Gravelly SAND: Fine to medium grained, pale brwon, gravel is medium grained, pale brown. (continued) Less penetration required.	M	F	
									7			Gravelly SAND: Fine to medium grained, brown, gravel is medium to coarse, brown.			
					E				7			Groundwater observed.			PID: 390ppm.
									6			Groundwater loss.			
									8						
					E				5			Shale: grey, moderate strength.			
									9			Borehole terminated at 9m			
									4						
									10						
									3						
									11						
									2						
									12						

method AS auger screwing* AD auger drilling* RR roller/tricone W washbore CT cable tool DT diatube B blank bit V V bit T TC bit TBX Tubex *bit shown by suffix e.g. ADT	support C casing N nil penetration 1 2 3 4  no resistance ranging to refusal water  10/1/98 water level on date shown  water inflow  water outflow	notes, samples, tests U ₅₀ undisturbed sample 50mm diameter D disturbed sample N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone P pressure meter Bs bulk sample R refusal E environmental sample PID PID measurement WS water sample PZ piezometer ALT air lift test	classification symbols and soil description based on unified classification system moisture D dry M moist W wet Wp plastic limit WL liquid limit	consistency/density index VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense
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Borehole No. **MW9**

Engineering Log - Piezometer

Sheet 1 of 2

Office Job No.: **ENVILCOV00315AH**

Client: **Valad Property Group**

Date started: **30.5.2008**

Principal:

Date completed: **30.5.2008**

Project: **ESA 630-726 Princess Highway Tempe**

Logged by: **NC**

Borehole Location: **Kennards Self Storage**

Checked by: **BS**

drill model & mounting: Truck mounted drill rig		Easting:		slope: -90°		R.L. Surface:	
hole diameter:		Northing:		bearing:		datum:	
drilling information				material substance			
method	penetration 1 2 3	support water	notes samples, tests, etc	well details	RL	depth metres	material
ADT							TURF / GRASS FILL: GRAVELLY SAND: fine to medium grained, brown to dark brown. Gravel is fine to medium grained, pale brown to brown.
			E			1	FILL: GRAVELLY SANDY CLAY: low plasticity, brown to dark brown. Gravel is fine grained, pale brown to brown.
			E			2	SILTY CLAY: low to medium plasticity, brown to pale brown. Gravel is fine grained, pale brown to brown. GRAVELLY SAND: fine to medium grained, grey to pale brown. Gravel is fine grained, grey.
			E			3	
						4	
						5	
						6	
						7	
						8	
method AS auger screwing* AD auger drilling* RR roller/tricone W washbore CT cable tool DT diatube B blank bit V V bit T TC bit TBX Tubex *bit shown by suffix e.g. ADT				support C casing N nil penetration 1 2 3 4 no resistance ranging to refusal water 10/1/98 water level on date shown water inflow water outflow		notes, samples, tests U ₅₀ undisturbed sample 50mm diameter D disturbed sample N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone P pressure meter Bs bulk sample R refusal E environmental sample PID PID measurement WS water sample PZ piezometer ALT air lift test	
classification symbols and soil description based on unified classification system moisture D dry M moist W wet W _p plastic limit W _L liquid limit				consistency/density index VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense			

Borehole No. **MW9**

Engineering Log - Piezometer

Sheet 2 of 2

Office Job No.: **ENVILCOV00315AH**

Client: **Valad Property Group**

Date started: **30.5.2008**

Principal:





Date completed: **30.5.2008**

Project: **ESA 630-726 Princess Highway Tempe**

Logged by: **NC**

Borehole Location: **Kennards Self Storage**

Checked by: **BS**

drill model & mounting: Truck mounted drill rig				Easting:		slope: -90°		R.L. Surface:					
hole diameter:				Northing:		bearing:		datum:					
drilling information						material substance							
method	penetration	support	water	notes samples, tests, etc	well details	RL	depth metres	graphic log	classification symbol	material	moisture condition	consistency/ density index	structure and additional observations
Air Blade	1 2 3						9			GRAVELLY SAND: fine to medium grained, grey to pale brown. Gravel is fine grained, grey. (continued) becoming light grey shale.	D	L	
							10				M		
							11						
							12			Borehole terminated at 11.6m			
							13						
							14						
							15						
							16						
method AS auger screwing* AD auger drilling* RR roller/tricone W washbore CT cable tool DT diatube B blank bit V V bit T TC bit TBX Tubex *bit shown by suffix e.g. ADT				support C casing N nil penetration 1 2 3 4  no resistance ranging to refusal water  10/1/98 water level on date shown  water inflow  water outflow		notes, samples, tests U ₅₀ undisturbed sample 50mm diameter D disturbed sample N standard penetration test (SPT) N* SPT - sample recovered Nc SPT with solid cone P pressure meter Bs bulk sample R refusal E environmental sample PID PID measurement WS water sample PZ piezometer ALT air lift test				classification symbols and soil description based on unified classification system moisture D dry M moist W wet W _p plastic limit W _L liquid limit		consistency/density index VS very soft S soft F firm St stiff VSt very stiff H hard Fb friable VL very loose L loose MD medium dense D dense VD very dense	

Appendix G PID Results

**Contamination Assessment
630 - 726 Princes Highway, Tempe**

form E5.1 - photoionisation detector results

client:	Valad Properties Group	office:	LANE COVE			
principal:		date:	19/5/08 – 3/6/08			
project:	ESA, 630-276 Princes Hwy	by:	NC			
location:	Tempe, NSW	checked by:	BS			
PID serial number: MINIRAE 2000 (SN: 110-900975)		lamp voltage: 10.6eV				
<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> PID Calibration Record Date / Time of Calibration: 19/5/2008 <input checked="" type="checkbox"/> Zero Calibration (0.0ppm) Actual Reading 0.00 ppm Calibrated by: NC </div> <div style="width: 48%;"> Calibration gas: 100 ppm ISOBUTYLENE <input checked="" type="checkbox"/> Span Calibration (100 ppm) Actual Reading 99.8 ppm </div> </div>						
SAMPLE ID	DEPTH	DURATION (mins)	BACKGROUND READING (ppm)	MAXIMUM READING (ppm)	LAST READING (ppm)	NOTES
BH6	0.5-0.7	1	0.00	657		19/5/2008
	1.0-1.2	1	0.00	258		
	1.5-1.7	1	0.00	418		
	2.5-2.7	1	0.00	233		
	3.5-3.7	1	0.00	118		
	4.5-4.7	1	0.00	348		
	5.5-5.7	1	0.00	200		
	7.0-7.2	1	0.00	390		
	8.5-8.7	1	0.00	318		
BH3	0.5-0.7	1	0.00	55	40.0	
	1.0-1.2	1	0.00	600	280	
	1.4-1.5	1	0.00	82	70	
	2.5-2.7	1	0.00	42.0	30.0	
	3.5-3.7	1	0.00	230	177	
	4.5-4.7	1	0.00	28.7	17.0	
	5.4-5.5	1	0.00	38.3	31.0	
BH9	1.0-1.2	1	0.00	400		

Fill in the test type as follows:-

BH () = soil gas probe sample; (soil type - unified classification system in parentheses)

HS () = headspace sample (with soil type-unified classification system in parentheses)

form E5.1 - photoionisation detector results

client:	Valad Properties Group			office:	LANE COVE	
principal:				date:	19/5/08 – 3/6/08	
project:	ESA, 630-276 Princes Hwy			by:	NC	
location:	Tempe, NSW			checked by:	BS	
PID serial number: MINIRAE 2000 (SN: 110-900975)				lamp voltage: 10.6eV		
PID Calibration Record Date / Time of Calibration: 19/5/2008 <input checked="" type="checkbox"/> Zero Calibration (0.0ppm) Actual Reading 0.00 ppm Calibrated by: NC				Calibration gas: 100 ppm ISOBUTYLENE <input checked="" type="checkbox"/> Span Calibration (100 ppm) Actual Reading 99.8 ppm		
SAMPLE ID	DEPTH	DURATION (mins)	BACKGROUND READING (ppm)	MAXIMUM READING (ppm)	LAST READING (ppm)	NOTES
BH9	1.5-1.7	1	0.00	465		
	2.5-2.7	1	0.00	45.5		DUP 1
	3.5-3.7	1	0.00	242		
	4.2-4.4	1	0.00	328		
MW2	D1	1	0.00	235	193	
	D2	1	0.00	375	310	
	D3	1	0.00	685	600	
	D4	1	0.00	900	620	

Fill in the test type as follows:-

BH () = soil gas probe sample; (soil type - unified classification system in parentheses)

HS () = headspace sample (with soil type-unified classification system in parentheses)

form E5.1 - photoionisation detector results

client:	Valad Properties Group			office:	LANE COVE	
principal:				date:	19/5/08 – 3/6/08	
project:	ESA, 630-276 Princes Hwy			by:	NC	
location:	Tempe, NSW			checked by:	BS	
PID serial number: MINIRAE 2000 (SN: 110-009460)				lamp voltage: 10.6eV		
PID Calibration Record Date / Time of Calibration: 20/5/2008 <input checked="" type="checkbox"/> Zero Calibration (0.0ppm) Actual Reading 0.00 ppm Calibrated by: NC				Calibration gas: 100 ppm ISOBUTYLENE <input checked="" type="checkbox"/> Span Calibration (100 ppm) Actual Reading 99.9 ppm		
SAMPLE ID	DEPTH	DURATION (mins)	BACKGROUND READING (ppm)	MAXIMUM READING (ppm)	LAST READING (ppm)	NOTES
MW6	0.5-0.7	1	0.00	1.8		20/5/2008 (New PID Unit)
	1.0-1.2	1	0.00	1.6		
	1.5-1.7	1	0.00	1.3		
	2.5-2.7	1	0.00	1.4		
	3.5-3.7	1	0.00	0.9		
	4.5-4.7	1	0.00	0.7		
	6.0-6.2	1	0.00	0.6		
	7.5-7.7	1	0.00	0.5		
	9.0-9.1	1	0.00	0.6		
BH4	0.5-0.7	1	0.00	0.3		
	1.0-1.2	1	0.00	0.5		
	1.5-1.7	1	0.00	0.8		
	2.5-2.7	1	0.00	0.8		
	3.5-3.7	1	0.00	0.7		
BH2	0.5-0.8	1	0.00	1.2		DUP 2, DUP 2A
	1.5-1.7	1	0.00	1.0		
	2.5-2.7	1	0.00	0.8		

Fill in the test type as follows:-

BH () = soil gas probe sample; (soil type - unified classification system in parentheses)

HS () = headspace sample (with soil type-unified classification system in parentheses)