

**INQUIRY INTO ENROLMENT CAPACITY IN INNER CITY
PUBLIC PRIMARY SCHOOLS**

Name: NSW Department of Education

Date received: 27 September 2016

Partially
Confidential

BOREHOLE LOG

CLIENT: Government Architects Office
PROJECT: Contamination Investigation
LOCATION: 14-16 Wattle Street, Ultimo

SURFACE LEVEL: --
EASTING:
NORTHING:
DIP/AZIMUTH: 90°/--

BORE No: BH119
PROJECT No: 73753.01
DATE: 11/4/2014
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing				Water	Well Construction Details	
				Type	Depth	Sample	Results & Comments			
1		FILLING - dark grey-brown, silty sand filling with some wood chips, gravel and trace glass		A	0.3		10/30mm refusal		Gatic Cover	
					0.6					
	0.6	FILLING - dark grey-brown, silty, fine to medium sand filling with angular gravel, wet			0.7					
	0.8				0.8					
	1.0	FILLING - dark grey, silty, fine to medium sand filling with some sub-angular gravel (angular). Strong petroleum odour		S	1.0				Backfilled with gravel	
		FILLING - dark grey, silty, fine to medium sand filling with some sub-angular gravel. Strong petroleum odour			1.2					
				A	1.9				Machine slotted PVC screen	
					2.0					
	2.2	FILLING - dark grey, silty, fine to medium silty sand filling, wet. Petroleum odour		A	2.2					
	2.5	FILLING - dark grey, silty, fine to medium sand filling, wet. Petroleum odour			2.5					
3	3.0	Bore discontinued at 3.0m			3.0				End cap	
4										

RIG: Bobcat DT250

DRILLER: S Younan

LOGGED: VK

CASING: Uncased

TYPE OF BORING: Solid flight auger to 3.0m

WATER OBSERVATIONS: Free groundwater observed at 0.7m

REMARKS:

SAMPLING & IN SITU TESTING LEGEND			
A	Auger sample	G	Gas sample
B	Bulk sample	P	Piston sample
BLK	Block sample	U	Tube sample (x mm dia.)
C	Core drilling	W	Water sample
D	Disturbed sample	W	Water seep
E	Environmental sample	W	Water level
		PLD	Photo ionisation detector (ppm)
		PL(A)	Point load axial test Is(50) (MPa)
		PL(D)	Point load diametral test Is(50) (MPa)
		pp	Pocket penetrometer (kPa)
		S	Standard penetration test
		V	Shear vane (kPa)

BOREHOLE LOG

CLIENT: Government Architects Office
PROJECT: Contamination Investigation
LOCATION: 14-16 Wattle Street, Ultimo

SURFACE LEVEL: 6.19 AHD
EASTING: 332988.8
NORTHING: 6250294.6
DIP/AZIMUTH: 90°/--

BORE No: BH120
PROJECT No: 73753.01
DATE: 11/4/2014
SHEET 1 OF 1

[illegible]

RIG: Scout 2

DRILLER: J Simon

LOGGED: RJL

CASING: Uncased

TYPE OF BORING: Diacore to 0.28m: Solid flight auger to 2.8m

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

SAMPLING & IN SITU TESTING LEGEND			
A	Auger sample	G	Gas sample
B	Bulk sample	P	Piston sample
BLK	Block sample	U	Tube sample (x mm dia.)
C	Core drilling	W	Water sample
D	Disturbed sample	W	Water seep
E	Environmental sample	W	Water level
		PID	Photo ionisation detector (ppm)
		PL(A)	Point load axial test Is(50) (MPa)
		PL(D)	Point load diametral test Is(50) (MPa)
		pp	Pocket penetrometer (kPa)
		S	Standard penetration test
		V	Shear vane (kPa)



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BOREHOLE LOG

CLIENT: Government Architects Office
PROJECT: Contamination Investigation
LOCATION: 14-16 Wattle Street, Ultimo

SURFACE LEVEL: 6.17 AHD
EASTING: 332990.9
NORTHING: 6250292.2
DIP/AZIMUTH: 90°/--

BORE No: BH121
PROJECT No: 73753.01
DATE: 11/4/2014
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing				Water	Well Construction Details	
				Type	Depth	Sample	Results & Comments			
		CONCRETE								
	0.28	FILLING - grey, silty, fine to medium silty sand filling with some sub-angular gravel		A	0.3					
					0.5					
					0.8					
	0.9	FILLING - orange and white, medium grained sandstone filling		S			10,11,9 N = 20		1	
	1.0	FILLING - light brown, silty, fine to medium sand with some sub-angular gravel			1.25					
	1.3	FILLING - dark brown, silty, fine to medium sand with sub-angular gravel			1.8					
				S	2.25		3,35,3 N = 38		2	
					2.8					
	2.9	SANDSTONE - extremely weathered, white and orange, fine to medium grained sandstone		S	3.25		0,2,7 N = 9		3	
	4.0	Bore discontinued at 4.0m - target depth reached							4	

RIG: Scout 2

DRILLER: J Simon

LOGGED: RJL

CASING: Uncased

TYPE OF BORING: Diacore to 0.28m; Solid flight auger to 4.0m

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	>	Water seep	S	Standard penetration test
E	Environmental sample	≡	Water level	V	Shear vane (kPa)



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BOREHOLE LOG

CLIENT: Government Architects Office
PROJECT: Contamination Investigation
LOCATION: 14-16 Wattle Street, Ultimo

SURFACE LEVEL: 3.11 AHD
EASTING: 332995.2
NORTHING: 6250211.4
DIP/AZIMUTH: 90°/--

BORE No: BH122
PROJECT No: 73753.01
DATE: 11/4/2014
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing				Water	Well Construction Details	
				Type	Depth	Sample	Results & Comments			
	0	CONCRETE								
	0.5	FILLING - dark brown, clayey, medium sand filling with sub-angular gravel, tar odour								
				A	0.8					
	1				1.0					
	1.2	FILLING - brown, silty, medium sand filling								
	1.8				1.8					
	2.0	FILLING - light brown, medium sandy clay filling with some sub-angular gravel								
		FILLING - white-orange, sandstone filling		S			6.5.5 N = 10			
					2.25					
	2.8				2.8					
		FILLING - light brown, medium sandy clay filling with sub-angular gravel		S			5.7.8 N = 15			
	3.25	Bore discontinued at 3.25m - target depth reached			3.25					
	4									

RIG: DT100

DRILLER: S Salib

LOGGED: RJL

CASING: Uncased

TYPE OF BORING: Diacore to 0.5m; Solid flight auger to 3.1m; SPT 3.1-3.25m

WATER OBSERVATIONS: Free groundwater observed at 2.5m

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	>	Water seep	S	Standard penetration test
E	Environmental sample	≡	Water level	V	Shear vane (kPa)

BOREHOLE LOG

CLIENT: Government Architects Office
PROJECT: Contamination Investigation
LOCATION: 14-16 Wattle Street, Ultimo

SURFACE LEVEL: 3.00 AHD
EASTING: 332968.1
NORTHING: 6250215.1
DIP/AZIMUTH: 90°/--

BORE No: BH123
PROJECT No: 73753.01
DATE: 11/4/2014
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing				Water	Well Construction Details	
				Type	Depth	Sample	Results & Comments			
	0.23	CONCRETE								
		FILLING - light brown, silty, fine to medium sand with sub-angular gravel		A	0.3					
					0.5					
					0.8					
	0.9	FILLING - black, medium sand filling with ash and sub-angular gravel, tar odour		S			3,3,4 N = 7		1	
					1.25					
	1.5	FILLING - light brown, silty clay filling								
	1.8	FILLING - dark brown, gravelly medium sand filling			1.8					
				S			1,1,1 N = 2		2	
	2.2	FILLING - grey, clayey, fine to medium sand filling with sub-angular gravel			2.25					
					2.8					
				S			1,3,17/25mm refusal		3	
					3.13					
					3.8					
				S			6,25/120mm refusal		4	
	4.1	Bore discontinued at 4.1m - target depth reached			4.22					

RIG: Scout 2

DRILLER: J Simon

LOGGED: RJL

CASING: Uncased

TYPE OF BORING: Diacore to 0.23m; Solid flight auger to 4.1m

WATER OBSERVATIONS: Free groundwater observed at 2.0m

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	>	Water seep	S	Standard penetration test
E	Environmental sample	≡	Water level	V	Shear vane (kPa)



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BOREHOLE LOG

CLIENT: Government Architects Office
PROJECT: Contamination Investigation
LOCATION: 14-16 Wattle Street, Ultimo

SURFACE LEVEL: 3.15 AHD
EASTING: 332998.5
NORTHING: 6250176.9
DIP/AZIMUTH: 90°/-

BORE No: BH124
PROJECT No: 73753.01
DATE: 11/4/2014
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing				Water	Well Construction Details	
				Type	Depth	Sample	Results & Comments			
	0.15	CONCRETE								
		FILLING - black, silty, fine to medium sand filling with some gravel. Petroleum odour		A	0.2					
	0.5	FILLING - yellow and dark grey, silty sandstone filling. Petroleum odour		A	0.5					
					0.6					
1	1.0	FILLING - dark grey-black to yellow, sandstone filling with some ironstained sandstone gravel. Petroleum odour			1.0				1	
					1.2		15,8 5 N = 13			
				A S	1.45					
	1.5	FILLING - dark grey, silty sand filling with trace sandstone gravel. Petroleum odour			1.5					
					1.6					
				A						
2					2.0				2	
					2.2					
				A						
	2.5	FILLING - dark grey-brown, silty sand filling with some gravel, moist. Petroleum odour			2.5					
					2.6					
				A						
3	3.0	FILLING - brown, silty filling with some sand and gravel, wet. Petroleum odour		A	3.0				3	
	3.3	Bore discontinued at 3.3m - refusal			3.3					
4									4	

RIG: Bobcat DT250

DRILLER: S Younan

LOGGED: VK

CASING: Uncased

TYPE OF BORING: Solid flight auger to 3.3m

WATER OBSERVATIONS: Free groundwater observed at 3.0m

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	W	Water seep	S	Standard penetration test
E	Environmental sample	W	Water level	V	Shear vane (kPa)



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BOREHOLE LOG

CLIENT: Government Architects Office
PROJECT: Contamination Investigation
LOCATION: 14-16 Wattle Street, Ultimo

SURFACE LEVEL: 3.29 AHD
EASTING: 332993.7
NORTHING: 6250184.1
DIP/AZIMUTH: 90°/--

BORE No: BH125
PROJECT No: 73753.01
DATE: 11/4/2014
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing				Water	Well Construction Details	
				Type	Depth	Sample	Results & Comments			
	0.15	CONCRETE								
	0.2	FILLING - dark grey, fine to medium sandy silt filling with some sub-angular gravel. Petroleum odour		A						
	0.5	FILLING - grey-brown, sandy silt filling with some sandstone gravel and some light grey-red clay. Petroleum odour		A						
	0.6									
	0.9	FILLING - light grey and brown, sandy silt filling. Petroleum odour		S			10,50 refusal		1	
	1.1	Bore discontinued at 1.1m - auger refusal			1.1					
	2									
	3									
	4									

RIG: DT100

DRILLER: S Salib

LOGGED: VK

CASING: Uncased

TYPE OF BORING: Diacore then Solid flight auger to 1.1m

WATER OBSERVATIONS: No free groundwater observed

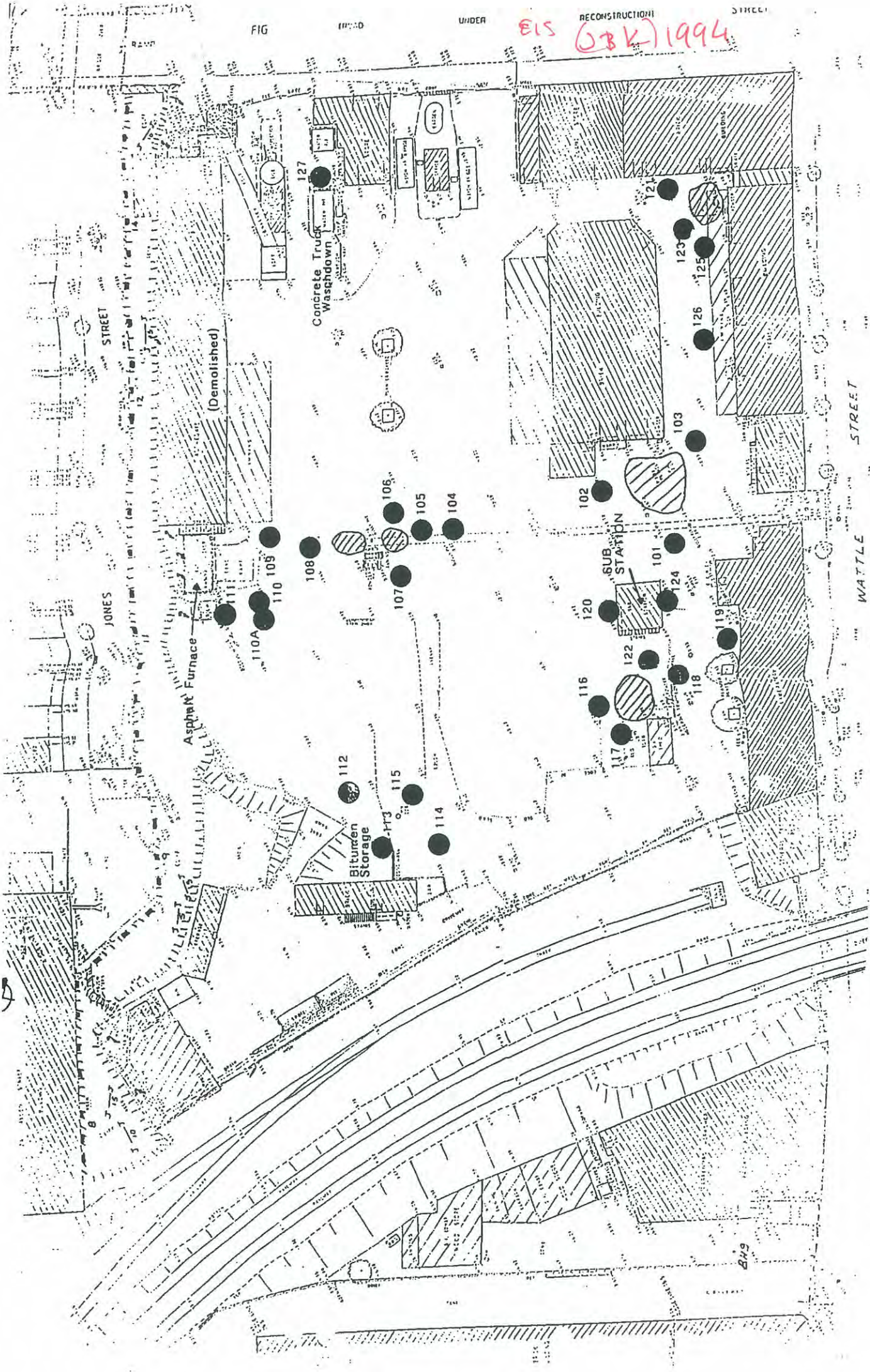
REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	>	Water seep	S	Standard penetration test
E	Environmental sample	≡	Water level	V	Shear vane (kPa)



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- Underground Storage Tank
- Location of Excavation after Tank Removal
- Demolished

BOREHOLE LOCATION PLAN





Borehole No.

101
1/1

BOREHOLE LOG

Client: SYDNEY CITY COUNCIL
Project: ENVIRONMENTAL INVESTIGATION
Location: WATTLE STREET, PYRMONT. NSW.

Job No. E10242S
Date: 17-3-94

Method: SPIRAL AUGER
GEMCO RIG

R.L. Surface: 2.4m
Datum: AHD

Logged/Checked by: PB./PS.

Groundwater Record	Samples	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition	Consistency/Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION	ES	PID 8.9ppm	0		-	ASPHALTIC CONCRETE: 10mm.t. FILL: Silty sandy gravel, dark grey to brown, gravel comprised of crushed igneous rock.	D/M	-	-	MODERATE HYDROCARBON ODOUR BELOW 0.6m
	ES	PID 18.5ppm	1			FILL: Silty clayey sand, fine to medium grained, dark grey, some crushed igneous rock gravel and crushed sandstone.	M			
	ES	PID 17ppm								STRONG HYDROCARBON ODOUR 1.8 TO 2.8m
	ES	PID 18ppm	2							
	ES	PID 12.8ppm	3			END OF BOREHOLE AT 2.8m				BOREHOLE TERMINATED ON SANDSTONE BOULDER
			4							
			5							
			6							
			7							



Borehole No.

102
1/1

BOREHOLE LOG

Client: SYDNEY CITY COUNCIL
Project: ENVIRONMENTAL INVESTIGATION
Location: WATTLE STREET, PYRMONT. NSW.

Job No. E10242S
Date: 17-3-94

Method: SPIRAL AUGER
GEMCO RIG

R.L. Surface: 2.9m
Datum: AHD

Logged/Checked by: PB./PS.

Groundwater Record	Samples	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition	Consistency/Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION			0		-	CONCRETE: 110mm.t.	M	-	-	-
	ES	PID - 15.1ppm				FILL: Gravelly clayey sand, fine to coarse grained, black, grading to dark grey and brown, some sandstone gravel.				
	ES	PID - 1.6ppm	1							
	ES	PID - 1.8ppm								
	ES	PID - 1.7ppm	2			FILL: Gravelly sandy clay, low plasticity, yellow grey, fine to medium grained sand, fine to coarse igneous and sandstone gravel.				
	ES	PID - 1.7ppm	3			END OF BOREHOLE AT 2.9m				
			4							
			5							
			6							
			7							

MODERATE
HYDROCARBON
ODOUR



Borehole No.

103
1/1

BOREHOLE LOG

Client: SYDNEY CITY COUNCIL
Project: ENVIRONMENTAL INVESTIGATION
Location: WATTLE STREET, PYRMONT. NSW.

Job No. E10242S

Method: SPIRAL AUGER
GEMCO RIG

R.L. Surface: 2.6m

Date: 17-3-94

Datum: AHD

Logged/Checked by: PB./PS.

Groundwater Record	Samples	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition	Consistency/Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
			0	XXXX	-	ASPHALTIC CONCRETE: 40mm.t. IGNEOUS ROCK PAVING UNIT ABANDONED BOREHOLE AT 0.13m	-	-	-	'TC' BIT BREAKAGE
			1							
			2							
			3							
			4							
			5							
			6							
			7							



Borehole No.

104
1/1

BOREHOLE LOG

Client: SYDNEY CITY COUNCIL
Project: ENVIRONMENTAL INVESTIGATION
Location: WATTLE STREET, PYRMONT. NSW.

Job No. E10242S **Method:** SPIRAL AUGER BCD450 **R.L. Surface:** 3.1m
Date: 18-3-94 **Datum:** AHD

Logged/Checked by: PB./PS.

Groundwater Record	Samples	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition	Consistency/Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION			0		-	CONCRETE: 180mm.t.				
	ES	PID - 2.8ppm				FILL: Silty sandy gravel, (crushed igneous rock gravel) fine to medium grained sand, dark grey.	M	-	-	SLIGHT DIESEL FUEL ODOUR
						END OF BOREHOLE AT 0.6m				'TC' BIT REFUSAL IN FILL POSSIBLY ON IGNEOUS ROCK BOULDERS
			1							
			2							
			3							
			4							
			5							
			6							
			7							



Borehole No.

105
1/1

BOREHOLE LOG

Client: SYDNEY CITY COUNCIL
Project: ENVIRONMENTAL INVESTIGATION
Location: WATTLE STREET, PYRMONT. NSW.

Job No. E10242S
Date: 18-3-94

Method: SPIRAL AUGER
GCH RIG

R.L. Surface: 3.1m
Datum: AHD

Logged/Checked by: PG./PS.

Groundwater Record	Samples	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition	Consistency/Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION	ES	PID 0.7ppm	0		-	CONCRETE: 250mm.t.	-	-	-	DIATUBE
					-	FILL: Compacted subangular and subrounded gravels, medium to coarse size.	M	-	-	MODERATE DIESEL ODOUR
			1			FILL: Gravelly sand, medium grained, dark grey with fine gravels.				'TC' BIT REFUSAL
						END OF BOREHOLE AT 0.55m				
			2							
			3							
			4							
			5							
			6							
			7							



Borehole No.

106
1/1

BOREHOLE LOG

Client: SYDNEY CITY COUNCIL
Project: ENVIRONMENTAL INVESTIGATION
Location: WATTLE STREET, PYRMONT. NSW.

Job No. E10242S
Date: 18-3-94

Method: SPIRAL AUGER
BCD450

R.L. Surface: 3.2m
Datum: AHD

Logged/Checked by: PB./PS.

Groundwater Record	Samples	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition	Consistency/Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
			0			CONCRETE: 180mm.t.				DIATUBE
	ES	PID 0.3ppm			-	FILL: Silty sandy gravel, (igneous rock and sandstone gravel), sand, fine to medium grained, dark grey to brown, trace of wood.	M	-	-	-
	ES	PID 1.8ppm	1							
	ES	PID 0.4ppm								
			2			FILL: Silty sand, fine to medium grained, grey brown, some crushed sandstone gravel.	M/W			
	ES	PID 0.3ppm	3			FILL: Sandy clay, high plasticity, dark grey brown, some crushed sandstone gravel.	MC>>PL			
	ES	PID 0.4ppm				END OF BOREHOLE AT 4.0m				
			5							
			6							
			7							

▼
AFTER
8 HRS.



Borehole No.

107
1/1

BOREHOLE LOG

Client: SYDNEY CITY COUNCIL
Project: ENVIRONMENTAL INVESTIGATION
Location: WATTLE STREET, PYRMONT, NSW.

Job No. E10242S
Date: 18-3-94

Method: SPIRAL AUGER
GCH RIG

R.L. Surface: 3.3m
Datum: AHD

Logged/Checked by: PG./PS.

Groundwater Record	Samples	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition	Consistency/Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION			0		-	CONCRETE: 230mm.t.				DIATUBE
	ES	PID 0.3ppm			-	COMPACTED ROADBASE GRAVEL FILL: Gravelly sand, medium to coarse grained, dark grey with fine gravels.	M	-	-	-
						END OF BOREHOLE AT 0.6m				'TC' BIT REFUSAL
			1							
			2							
			3							
			4							
			5							
			6							
			7							

Borehole No.

108
1/1

BOREHOLE LOG

Client: SYDNEY CITY COUNCIL
Project: ENVIRONMENTAL INVESTIGATION
Location: WATTLE STREET, PYRMONT. NSW.

Job No. E10242S
Date: 18-3-94

Method: SPIRAL AUGER
GCH RIG

R.L. Surface: 3.4m
Datum: AHD

Logged/Checked by: PG./PS.

Groundwater Record	Samples	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition	Consistency/Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION			0			CONCRETE: 220mm.t.				DIATUBE
	ES	PID 2.0ppm				COMPACTED ROADBASE GRAVEL	-	-	-	-
						FILL: Silty sand, medium grained, dark grey with some wood fragments. END OF BOREHOLE AT 0.4m	M	-	-	'TC' BIT REFUSAL
			1							
			2							
			3							
			4							
			5							
			6							
			7							



Borehole No.

109
1/1

BOREHOLE LOG

Client: SYDNEY CITY COUNCIL
Project: ENVIRONMENTAL INVESTIGATION
Location: WATTLE STREET, PYRMONT. NSW.

Job No. E10242S
Date: 18-3-94

Method: SPIRAL AUGER
BCD450

R.L. Surface: 3.5m
Datum: AHD

Logged/Checked by: PB./PS.

Groundwater Record	Samples	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition	Consistency/Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
			0			CONCRETE: 190mm.t.				DIATUBE
	ES	PID 0.3ppm				FILL: Silty sandy gravel, (igneous rock gravel and crushed sandstone)	M	-	-	
	ES	PID 0.3ppm	1			FILL: Sandy clay, medium to high plasticity, orange brown to red brown.	MC<PL	-	-	
	ES	PID 0.4ppm								
	ES	PID 0.2ppm	2							
AFTER 7 HRS.										
	ES	PID 0.3ppm	3				MC>>PL			
			4							
						SANDSTONE: fine to medium grained, orange brown, iron indurated, highly weathered, strong.	-	-	-	HIGH 'TC' BIT RESISTANCE
			5			END OF BOREHOLE AT 4.7m				
			6							
			7							



Borehole No.

110
1/1

BOREHOLE LOG

Client: SYDNEY CITY COUNCIL
Project: ENVIRONMENTAL INVESTIGATION
Location: WATTLE STREET, PYRMONT. NSW.

Job No. E10242S
Date: 18-3-94

Method: SPIRAL AUGER
GCH RIG

R.L. Surface: 3.6m
Datum: AHD

Logged/Checked by: PG./PS.

Groundwater Record	Samples	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition	Consistency/ Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks		
		PID 0.3ppm	0			CONCRETE: 180mm.t. over CONCRETE: 190mm.t.				DIATUBE		
			1		-	VOID	-	-	-	-	VOID TO 2.3m	
			2			STANDING WATER AT 0.85m						
			END OF BOREHOLE AT 2.3m									
			3									
			4									
			5									
			6									
			7									



Borehole No.

110A
1/1

BOREHOLE LOG

Client: SYDNEY CITY COUNCIL
Project: ENVIRONMENTAL INVESTIGATION
Location: WATTLE STREET, PYRMONT. NSW.

Job No. E10242S
Date: 18-3-94

Method: SPIRAL AUGER
GCH RIG

R.L. Surface: 3.6m
Datum: AHD

Logged/Checked by: PG./PS.

Groundwater Record	Samples	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition	Consistency/Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
			0			CONCRETE: 180mm.t.				DIATUBE
	ES	PID 10.1ppm				FILL: Miscellaneous mix of roadbase gravel and silty sand, medium grained, dark grey.	M	-	-	MODERATE DIESEL ODOUR
	ES	PID 1.7ppm	1			FILL: Gravelly clayey sand, fine to medium grained, dark grey with traces of wood fragments.	M			
	ES	PID 3.1ppm								
	ES	PID 0.9ppm	2			FILL: Sandy gravelly clay, low plasticity, orange, red brown and pale grey with sandstone gravels.	MC>PL			
	ES	PID 0.3ppm				FILL: Silty sandy gravel, fine to medium size, grey.	W			
ON COMPLETION			3							
						SANDSTONE: fine to medium grained, orange brown, moderately weathered, strong.				HIGH 'TC' BIT RESISTANCE
						END OF BOREHOLE AT 3.4m				
			4							
			5							
			6							
			7							



Borehole No.

111

1/1

BOREHOLE LOG

Client: SYDNEY CITY COUNCIL
Project: ENVIRONMENTAL INVESTIGATION
Location: WATTLE STREET, PYRMONT. NSW.

Job No. E10242S
Date: 18-3-94

Method: SPIRAL AUGER
GCH RIG

R.L. Surface: 3.8m
Datum: AHD

Logged/Checked by: PG./PS.

Groundwater Record	Samples	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition	Consistency/Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION			0			CONCRETE: 150mm.t.				DIATUBE
	ES	PID 3.9ppm			-	FILL: Miscellaneous mix of roadbase gravel and silty sand, medium grained, dark grey.	M	-	-	-
	ES	PID 2.7ppm			-	FILL: Clayey gravelly sand, fine to medium grained, orange and red brown with fine to medium size gravels.	M	-	-	-
	ES	PID 0.5ppm	1		-	SANDSTONE: fine to medium grained, pale grey, slightly weathered, medium strong to strong.	-	-	-	MODERATE TO HIGH 'TC' BIT RESISTANCE
						END OF BOREHOLE AT 1.4m				
			2							
			3							
			4							
			5							
			6							
			7							



Borehole No.

112
1/1

BOREHOLE LOG

Client: SYDNEY CITY COUNCIL
Project: ENVIRONMENTAL INVESTIGATION
Location: WATTLE STREET, PYRMONT. NSW.

Job No. E10242S
Date: 18-3-94

Method: SPIRAL AUGER
BCD450

R.L. Surface: 3.7m
Datum: AHD

Logged/Checked by: PB./PS.

Groundwater Record	Samples	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition	Consistency/Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
			0			FILL: Silty sandy gravel. (crushed igneous rock gravel and sandstone gravel) sand fine to medium grained, dark grey.	M			
	ES	PID 0.3ppm								
	ES	PID 0.2ppm	1							
	ES	PID 1.9ppm				FILL: Sandy clay, clayey sand, medium plasticity, medium grained, some gravel grey brown to red brown.	MC<PL M	-	-	
	ES	PID 0.3ppm	2			FILL: Silty sand, fineto medium grained, orange brown.	M	-	-	
	ES	PID 0.2ppm	3			END OF BOREHOLE AT 3.0m	M/W			BOREHOLE COLLAPSED AT 2.3m
			4							
			5							
			6							
			7							



Borehole No.

113
1/1

BOREHOLE LOG

Client: SYDNEY CITY COUNCIL
Project: ENVIRONMENTAL INVESTIGATION
Location: WATTLE STREET, PYRMONT. NSW.

Job No. E10242S

Method: SPIRAL AUGER
GCH RIG

R.L. Surface: 3.2m

Date: 18-3-94

Datum: AHD

Logged/Checked by: PG./PS.

Groundwater Record	Samples	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition	Consistency/Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION	ES	PID 6.2ppm	0			FILL: Silty gravelly sand, fine to medium grained, brown with fine to medium size gravels.	D-M			BOREHOLE COLLAPSED AT 0.9m
	ES	PID 2.0ppm								
	ES	PID 4.1ppm	1			FILL: Gravelly sand, medium to coarse grained, grey and brown, with fine gravels and glass pieces. Some silty fines.	M			
	ES	PID 0.8ppm								
						END OF BOREHOLE AT 1.6m				'TC' BIT REFUSAL
			2							
			3							
			4							
			5							
			6							
			7							



Borehole No.

114
1/1

BOREHOLE LOG

Client: SYDNEY CITY COUNCIL
Project: ENVIRONMENTAL INVESTIGATION
Location: WATTLE STREET, PYRMONT. NSW.

Job No. E10242S
Date: 18-3-94

Method: SPIRAL AUGER
BCD450 RIG

R.L. Surface: 3.1m
Datum: AHD

Logged/Checked by: PB./PS.

Groundwater Record	Samples	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition	Consistency/Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
			0		-	CONCRETE: 180mm.t.				DIATUBE
	ES	PID 0.3ppm			-	FILL: Silty sandy gravel, (crushed igneous gravel), sand, fine to medium grained.	M	-	-	BOREHOLE COLLAPSED AT 0.4m
	ES	PID 0.5ppm	1		-					
					-	SANDSTONE: fine to medium grained, orange brown, moderately weathered.	-	-	-	-
						END OF BOREHOLE AT 1.5m				
			2							
			3							
			4							
			5							
			6							
			7							



Borehole No.

115
1/1

BOREHOLE LOG

Client: SYDNEY CITY COUNCIL
Project: ENVIRONMENTAL INVESTIGATION
Location: WATTLE STREET, PYRMONT. NSW.

Job No. E10242S
Date: 18-3-94

Method: SPIRAL AUGER
GCH RIG

R.L. Surface: 3.2m
Datum: AHD

Logged/Checked by: PG./PS.

Groundwater Record	Samples	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition	Consistency/Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
	ES	PID 1.6ppm	0		-	FILL: Gravelly silty sand, fine to medium grained, yellow brown and grey. CONCRETE: 220mm.t. END OF BOREHOLE AT 0.35m	-	-	-	DIATUBE
			1							DIATUBE REFUSED AT 0.35m METAL SHAVINGS IN WASH
			2							
			3							
			4							
			5							
			6							
			7							



Borehole No.

116
1/1

BOREHOLE LOG

Client: SYDNEY CITY COUNCIL
Project: ENVIRONMENTAL INVESTIGATION
Location: WATTLE STREET, PYRMONT. NSW.

Job No. E10242S

Method: SPIRAL AUGER
BCD450 RIG

R.L. Surface: 3.0m

Date: 18-3-94

Datum: AHD

Logged/Checked by: PB./PS.

Groundwater Record	Samples	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition	Consistency/Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
			0		-	FILL: Sand, fine to medium grained, light yellow brown. CONCRETE: 260mm.t.	D/M	-	-	
	ES	PID 0.5ppm			-	FILL: Sandy gravel, (crushed igneous gravel), fine to medium grained, dark grey.	M	-	-	
	ES	PID 31.4ppm	1							STRONG DIESEL FUEL ODOUR AT 0.9m TO 1.5m
▼ AFTER 3 HRS.	ES	PID 13.3ppm				FILL: Sandy clay, medium plasticity, grey, trace of sandstone gravel.	MC=PL	-	-	
	ES	PID 55.2ppm	2							STRONG KEROSENE ODOUR 2.0 TO 2.35m
▶	ES	PID 43.0ppm					MC>>PL			
	ES	PID 32.6ppm	3			END OF BOREHOLE AT 3.0m				END BOREHOLE AS WATER DOWN HOLE WASHES SOIL OFF AUGERS AND BOREHOLE CONTINUALLY COLLAPSES.
			4							
			5							
			6							
			7							



Borehole No.

117
1/1

BOREHOLE LOG

Client: SYDNEY CITY COUNCIL
Project: ENVIRONMENTAL INVESTIGATION
Location: WATTLE STREET, PYRMONT. NSW.

Job No. E10242S
Date: 18-3-94

Method: SPIRAL AUGER
BCD450 RIG

R.L. Surface: 2.9m
Datum: AHD

Logged/Checked by: PB./PS.

Groundwater Record	Samples	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition	Consistency/Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
			0			CONCRETE: 245mm. t.				DIATUBE
	ES	PID 15.7ppm			-	FILL: Silty clay, medium plasticity, red brown to grey brown, some sand, some crushed slag.	MC=PL	-	-	-
	ES	PID 6.8ppm	1							
	ES	PID 20.1ppm								
▼ AFTER 3 HRS.	ES	PID 9.7ppm	2			FILL: Gravelly sand, fine to medium grained, grey brown.	M	-	-	
	ES	PID 13.7ppm								
						END OF BOREHOLE AT 2.5m				
			3							
			4							
			5							
			6							
			7							



Borehole No.

118
1/1

BOREHOLE LOG

Client: SYDNEY CITY COUNCIL
Project: ENVIRONMENTAL INVESTIGATION
Location: WATTLE STREET, PYRMONT. NSW.

Job No. E10242S

Method: SPIRAL AUGER
GCH RIG

R.L. Surface: 3.5m

Date: 18-3-94

Datum: AHD

Logged/Checked by: PG./PS.

Groundwater Record	Samples	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition	Consistency/Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
			0			CONCRETE: 270mm.t.				DIATUBE
	ES	PID 2.6ppm			-	FILL: Clayey gravelly sand, medium grained, orange and red brown, with fine gravels.	M	-	-	-
	ES	PID 0.6ppm								
ON COMPLETION	ES	PID 16.9ppm	1			FILL: Clayey sandy gravel, fine to medium size, dark grey, with medium to coarse sand.				MODERATE FUEL ODOUR
	ES	PID 29.6ppm	2							
	ES	PID 26.7ppm					W			OILY SHEEN IN SAMPLE
	ES	PID 14.5ppm				END OF BOREHOLE AT 2.7m				
			3							
			4							
			5							
			6							
			7							



Borehole No.

119
1/1

BOREHOLE LOG

Client: SYDNEY CITY COUNCIL
Project: ENVIRONMENTAL INVESTIGATION
Location: WATTLE STREET, PYRMONT, NSW.

Job No. E10242S
Date: 18-3-94

Method: SPIRAL AUGER
GCH RIG

R.L. Surface: 2.5m
Datum: AHD

Logged/Checked by: PG./PS.

Groundwater Record	Samples	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition	Consistency/Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
	ES	PID 1.1 ppm	0			BITUMINOUS SEAL: 40mm.t. FILL: Clayey gravelly sand, fine to medium grained, dark grey with silty clay pockets.	M			
	ES	PID 0.3 ppm	1			FILL: Silty gravelly sand, medium to coarse grained, dark grey with fine gravels.				
	ES	PID 0.3 ppm	2			FILL: Sandy gravel, fine to medium size, with medium to coarse size sand, dark grey.	W			
	ES	PID 8.1 ppm	3			as above, but with pockets of silt and sandy clay.				
	ES	PID 4.0 ppm	4							
			5							
			6			SANDSTONE: fine to medium grained, pale grey, moderately weathered, weak. as above but medium strong.	-	-	-	NO SAMPLE ON AUGERS AT PULL OUT FROM 4m PVC STANDPIPE INSTALLED TO 4.9m
			7			END OF BOREHOLE AT 6.0m				LOW TO MODERATE 'TC' BIT RESISTANCE MODERATE RESISTANCE



Borehole No.

120
1/1

BOREHOLE LOG

Client: SYDNEY CITY COUNCIL
Project: ENVIRONMENTAL INVESTIGATION
Location: WATTLE STREET, PYRMONT. NSW.

Job No. E10242S
Date: 18-3-94

Method: SPIRAL AUGER
BCD450

R.L. Surface: 2.8m
Datum: AHD

Logged/Checked by: PB./PS.

Groundwater Record	Samples	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition	Consistency/Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
			0			CONCRETE: 200mm.t.				
	ES	PID 4.6ppm			-	FILL: Silty sandy gravel (crushed igneous rock and sandstone gravel), sand fine to medium grained, dark grey, some clay below 1.6m.	M	-	-	
	ES	PID 19.9ppm	1							
	ES	PID 12.3ppm								
	ES	PID 13.8ppm	2				W			
						END OF BOREHOLE AT 2.0m				
			3							
			4							
			5							
			6							
			7							



Borehole No.

121
1/1

BOREHOLE LOG

Client: SYDNEY CITY COUNCIL
Project: ENVIRONMENTAL INVESTIGATION
Location: WATTLE STREET, PYRMONT. NSW.

Job No. E10242S

Method: SPIRAL AUGER
BCD450 RIG

R.L. Surface: 3.0m

Date: 18-3-94

Datum: AHD

Logged/Checked by: PW./PS.

Groundwater Record	Samples	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition	Consistency/Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION	ES	PID 71ppm	0			ASPHALTIC CONCRETE: 25mm.1 FILL: Gravelly sand, with a trace of clay, brown.	M-W			STRONG TURPENTINE ODOUR
	ES	PID 106ppm	1			as above, but black.				
	ES	PID 127ppm								
			2			END OF BOREHOLE AT 1.8m				'TC' BIT REFUSAL IN FILL
			3							
			4							
			5							
			6							
			7							



Borehole No.

122
1/1

BOREHOLE LOG

Client: SYDNEY CITY COUNCIL
Project: ENVIRONMENTAL INVESTIGATION
Location: WATTLE STREET, PYRMONT. NSW.

Job No. E10242S

Method: SPIRAL AUGER
GCH RIG

R.L. Surface: 2.9m

Date: 18-3-94

Datum: AHD

Logged/Checked by: PB./PS.

Groundwater Record	Samples	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition	Consistency/Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
DRY ON COMPLETION			0			CONCRETE: 210mm.t.				DIATUBE
	ES	PID 8.6ppm			-	FILL: Clayey gravelly sand, fine to medium grained, dark grey with fine roots.	M	-	-	-
						END OF BOREHOLE AT 0.55m				AUGER REFUSAL
			1							
			2							
			3							
			4							
			5							
			6							
			7							



Borehole No.

123
1/1

BOREHOLE LOG

Client: SYDNEY CITY COUNCIL
Project: ENVIRONMENTAL INVESTIGATION
Location: WATTLE STREET, PYRMONT. NSW.

Job No. E10242S
Date: 18-3-94

Method: SPIRAL AUGER
BCD450 RIG

R.L. Surface: 2.9m
Datum: AHD

Logged/Checked by: PW./PS.

Groundwater Record	Samples	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition	Consistency/Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
			0		-	ASPHALTIC CONCRETE: 120mm.t.				
	ES	PID 127ppm				FILL: Gravelly sand, fine to medium grained, black.	M	-	-	STRONG ODOUR
	ES	PID 71ppm	1							
	ES	PID 128ppm								
ON COMPLETION	ES	PID 120ppm	2				W			
						END OF BOREHOLE AT 2.3m				'TC' BIT REFUSAL AT 2.3m
			3							
			4							
			5							
			6							
			7							



Borehole No.

124
1/1

BOREHOLE LOG

Client: SYDNEY CITY COUNCIL
Project: ENVIRONMENTAL INVESTIGATION
Location: WATTLE STREET, PYRMONT. NSW.

Job No. E10242S
Date: 18-3-94

Method: SPIRAL AUGER
GCH RIG

R.L. Surface: 2.6m
Datum: AHD

Logged/Checked by: PG./PS.

Groundwater Record	Samples	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition	Consistency/Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
			0			CONCRETE: 300mm.t.				DIATUBE
	ES	PID 5.9ppm			-	FILL: Gravelly sand, medium grained, brown, with fine gravels.	M	-	-	-
	ES	PID 6.6ppm	1			as above, but dark grey with some clayey fines. Traces of glass.				
	ES	PID 43.6ppm				FILL: Clayey gravelly sand, medium grained, brown and orange brown with fine to medium gravels.				
ON COMPLETION	ES	PID 6.8ppm	2			FILL: as above, but grey.	W			
	ES	PID 3.3ppm				END OF BOREHOLE AT 2.5m				
			3							
			4							
			5							
			6							
			7							



Borehole No.

125
1/1

BOREHOLE LOG

Client: SYDNEY CITY COUNCIL
Project: ENVIRONMENTAL INVESTIGATION
Location: WATTLE STREET, PYRMONT. NSW.

Job No. E10242S

Method: SPIRAL AUGER
BCD450 RIG

R.L. Surface: 2.8m

Date: 18-3-94

Datum: AHD

Logged/Checked by: PW./PS.

Groundwater Record	Samples	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition	Consistency/Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
			0			ASPHALTIC CONCRETE: 170mm.t. END OF BOREHOLE AT 0.17m				'TC' BIT REFUSAL AT 0.17m
			1							
			2							
			3							
			4							
			5							
			6							
			7							



Borehole No.

126
1/1

BOREHOLE LOG

Client: SYDNEY CITY COUNCIL
Project: ENVIRONMENTAL INVESTIGATION
Location: WATTLE STREET, PYRMONT. NSW.

Job No. E10242S
Date: 18-3-94

Method: SPIRAL AUGER
BCD450

R.L. Surface: 2.7m
Datum: AHD

Logged/Checked by: PW./PS.

Groundwater Record	Samples	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition	Consistency/Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
			0			ASPHALTIC CONCRETE: 180mm.t.				
						END OF BOREHOLE AT 0.18m				'TC' BIT REFUSAL AT 0.18m ON IGNEOUS ROCK PAVING STONES
			1							
			2							
			3							
			4							
			5							
			6							
			7							



Borehole No.

127
1/1

BOREHOLE LOG

Client: SYDNEY CITY COUNCIL
Project: ENVIRONMENTAL INVESTIGATION
Location: WATTLE STREET, PYRMONT. NSW.

Job No. E10242S
Date: 18-3-94

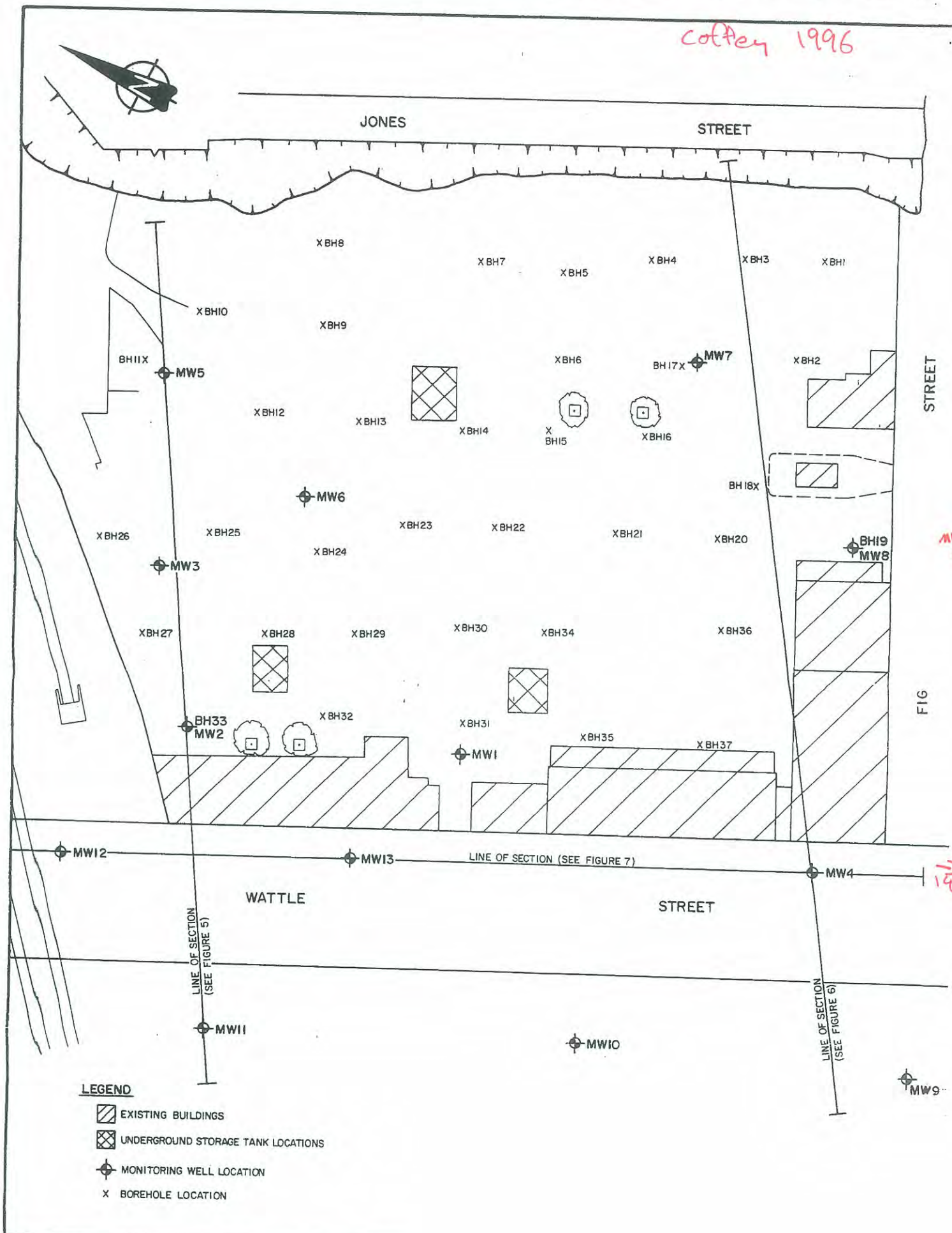
Method: SPIRAL AUGER
GCH RIG

R.L. Surface: 3.2m
Datum: AHD

Logged/Checked by: PG./PS.

Groundwater Record	Samples	Field Tests	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition	Consistency/Rel. Density	Hand Penetrometer Readings (kPa.)	Remarks
			0			CONCRETE: 150mm.t.				DIATUBE
	ES	PID 1.7ppm			-	FILL: Clayey gravelly sand, medium grained, brown with fine to medium size gravels.	M	-	-	-
	ES	PID 0.3ppm	1		-	SANDSTONE BOULDER: fine to medium grained, orange brown, moderately weathered, medium strong to strong.	-	-	-	MODERATE TO HIGH 'TC' BIT RESISTANCE
	ES	PID 0.3ppm			-	FILL: Clayey gravelly sand, fine to medium grained, brown and grey brown with fine to medium size gravels.	-	-	-	-
	ES	PID 0.4ppm	2			as above, but dark grey and brown.				
ON COMPLETION	ES	PID 0.4ppm	3			END OF BOREHOLE AT 3.0m				
			4							
			5							
			6							

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Incorporated in NSW

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scale (metres)

drawn	SJK/SW
checked	
date	

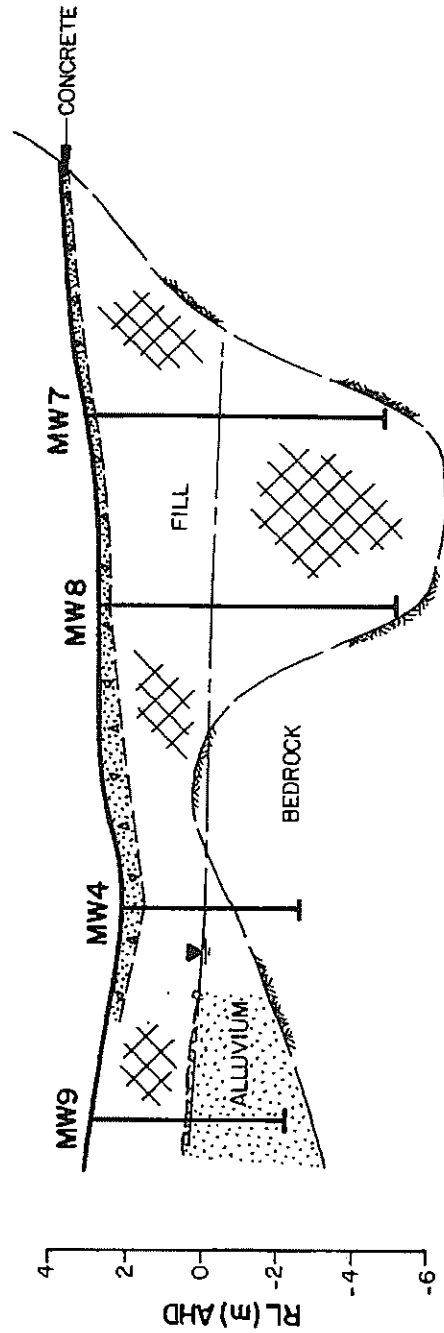
SYDNEY CITY COUNCIL
SITE CONTAMINATION ASSESSMENT
WATTLE STREET, DEPOT
BOREHOLE LOCATION PLAN



FIGURE 2

Job no E2035/3

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LEGEND

- MW9 ENVIRONMENTAL MONITORING WELL
- CONCRETE
- FILL
- ALLUVIAL SEDIMENTS
- BEDROCK
- APPROX POSITION OF WATER TABLE

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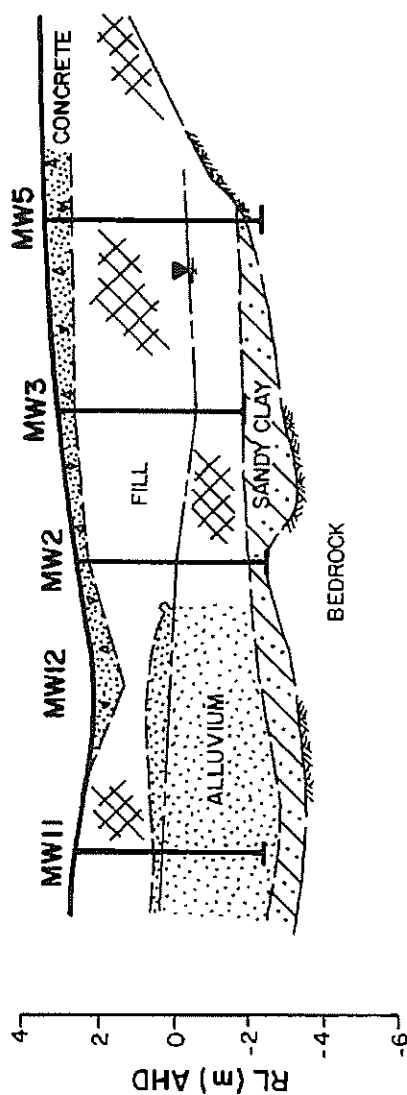
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**SYDNEY CITY COUNCIL
SITE CONTAMINATION ASSESSMENT
WATTLE STREET DEPOT
SOUTHWEST-NORTHEAST SECTION
THROUGH SOUTHERN SIDE OF SITE**



FIGURE 5

Job no. E2035/3



LEGEND

MW9 ENVIRONMENTAL MONITORING WELL

CONCRETE

FILL

ALLUVIAL SEDIMENTS

BEDROCK

APPROX POSITION OF WATER TABLE

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ACN 003 682 019

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date:	
scale:	1:1200H 1:200V

SYDNEY CITY COUNCIL
SITE CONTAMINATION ASSESSMENT
WATTLE STREET DEPOT
SOUTHWEST-NORTHEAST SECTION
THROUGH NORTHERN SIDE OF SITE



FIGURE 6

job no. E2035/3

MW5

sheet 1 of 2

engineering log -
groundwater monitoring well

office job no: E2035/2

hole completed: 8/11/1996

logged by: SJK

checked by: *TRM*

client:	SYDNEY CITY COUNCIL
principal:	
project:	SITE CONTAMINATION INVESTIGATION
borehole location:	WATTLE STREET DEPOT - REFER TO FIGURE 2

drill model and mounting: B40 - TRUCK MOUNTED

R.L. Top of PVC: 3.93

R.L. Surface:	3.33	0
---------------	------	---

hole diameter: 125mm

slope: -90 DEG

bearing:

datum: AHD

method		penetration	support	water	samples, tests, etc	well details	depth metres	graphic log	classification symbol	material soil type: plasticity or particle characteristics colour, secondary and minor components	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
DI	HF	1 2 3 4	NIL			RL							
										CONCRETE:	M		PAVEMENT
										FILL: Clayey GRAVEL, fine to coarse grained, dark brown, grey and black, roadbase			FILL
										Sandstone boulders in fill.			
										FILL: Gravelly Sandy CLAY, low to medium plasticity, grey and brown, with sandstone pieces.			

METHOD

HF hollow flight auger

AD auger drilling

RR roller/tricone

M washbore

CT cable tool

HA hand auger

DI diatube

*bit shown by suffix

B blank bit

V V bit

T TC bit

e.g. ADI

SUPPORT

Ni no support M mud

C casing

PENETRATION

1 2 3 4

little resistance ranging to very slow progress

WATER

X not measured D none observed

▽ water level

▽- water outflow

▽▽ water inflow

SAMPLES, TESTS, ETC

U undisturbed sample (mm)

D disturbed sample

Bs bulk sample

E environmental sample

N standard penetration test:

Nx SPT + sample recovered

Nc SPT with solid cone

VS vane shear

PJD PJD measurement

DP dynamic penetrometer

WS water sample

PZ piezometer

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



borehole no:
MW5
sheet 2 of 2

engineering log - groundwater monitoring well

office job no: E2035/2

client: SYDNEY CITY COUNCIL
principal:
project: SITE CONTAMINATION INVESTIGATION
borehole location: WAILE STREET DEPOT - REFER TO FIGURE 2

hole commenced: 8/11/1996
hole completed: 8/11/1996
logged by: SJK
checked by: *[Signature]*

drill model and mounting: B40 - TRUCK MOUNTED

R.L. Top of PVC: 3.93

R.L. Surface: 3.33 m

hole diameter: 125mm

slope: -90 DEG

bearing:

datum: AHD

method
penetration
support
water
samples, tests, etc
well details
R.L.
depth metres
graphic log
classification symbol
material
soil type: plasticity or particle characteristics
colour, secondary and minor components
moisture condition
consistency/density index
geological origin, additional observations (visual, olfactory)

ADV

S01

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METHOD

HF hollow flight auger
AD auger drilling
RR roller/tricone
W washbore
CT cable tool
HA hand auger
DT diatube
*bit shown by suffix
B blank bit
V V bit
T TC bit
e.g. ADI

SUPPORT

Nil no support M mud
C casing
PENETRATION
1 2 3 4
little resistance ranging to very slow progress
WATER
* not measured D none observed
water level
water outflow
water inflow

SAMPLES, TESTS, ETC

U undisturbed sample (mm)
D disturbed sample
Bs bulk sample
E environmental sample
N standard penetration test:
Nx SPI + sample recovered
Nc SPI with solid cone
VS vane shear
PID PID measurement
DP dynamic penetrometer
WS water sample
PZ piezometer

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

method	penetration	support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	soil type: plasticity or particle characteristics colour, secondary and minor components	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
ADV	1 2 3 4									FILL: Gravelly Sandy CLAY, low to medium plasticity, grey and brown, with sandstone pieces.				
							5			SANDSTONE: fine to medium grained, light grey and grey.				BEDROCK
							6			Borehole MW5 Terminated at 5.40 m				
							7							
							8							



borehole no:
MW6
sheet 1 of 3

engineering log - groundwater monitoring well

office job no: E2035/2

client: SYDNEY CITY COUNCIL
principal:
project: SITE CONTAMINATION INVESTIGATION
borehole location: WATTLE STREET DEPOT - REFER TO FIGURE 2

hole commenced: 8/11/1996
hole completed: 8/11/1996
logged by: SJK
checked by: *TRM*

drill model and mounting: B40 - TRUCK MOUNTED R.L. Top of PVC: 4.00 R.L. Surface: 3.27 m
hole diameter: 150mm slope: -90 DEG bearing: datum: AHD

method VERSION A1

ENWELL

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method	penetration	support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material soil type: plasticity or particle characteristics colour, secondary and minor components	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
DT	1 2 3 4	NIL								CONCRETE:			PAVEMENT
ADT							1			FILL: Gravelly Sandy CLAY low to medium plasticity, black and dark brown, with some concrete aggregate.	<wp		FILL
							2			Sandstone block.			
							2			FILL: Gravelly CLAY, low to medium plasticity, brown, with sandstone pieces.			
							3						
							4			Sandstone boulder in fill.	>wl		

METHOD
HF hollow flight auger
AD auger drilling*
RA roller/tricone
W washbore
CT cable tool
HA hand auger
DT diatube
*bit shown by suffix
B blank bit
V V bit
T TC bit
e.g. ADT

SUPPORT
N1 no support M mud
C casing
PENETRATION
1 2 3 4
little resistance ranging to very slow progress
WATER
X not measured D none observed
water level
water outflow
water inflow

SAMPLES, TESTS, ETC
U undisturbed sample (mm)
D disturbed sample
Bs bulk sample
E environmental sample
N standard penetration test:
Nx SPI + sample recovered
Nc SPI with solid cone
VS vane shear
PID PID measurement
DP dynamic penetrometer
WS water sample
PZ piezometer

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



borehole no:

MW6

sheet 2 of 3

engineering log - groundwater monitoring well

office job no: E2035/2

client: SYDNEY CITY COUNCIL
principal:
project: SITE CONTAMINATION INVESTIGATION
borehole location: WATTLE STREET DEPOT - REFER TO FIGURE 2

hole commenced: 8/11/1996
hole completed: 8/11/1996
logged by: SJK
checked by: TLM

drill model and mounting: B40 - TRUCK MOUNTED

R.L. Top of PVC: 4.00

R.L. Surface: 3.27 m

hole diameter: 150mm

slope: -90 DEG

bearing:

datum: AHD

VERSION A1

ENWELL

SO1

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method	penetration 1 2 3 4	support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material soil type: plasticity or particle characteristics colour, secondary and minor components	moisture condition	consistency/ density index	geological origin, additional observations (visual, olfactory)						
ADT							1 5 -2 6 -3 7 -4		FILL: Gravelly CLAY, low to medium plasticity, brown, with sandstone pieces. Sandstone boulder in fill.										
METHOD HF hollow flight auger AD auger drilling RR roller/tricone W washbore CT cable tool HA hand auger DT diatube *bit shown by suffix B blank bit V V bit T TC bit e.g. ADT				SUPPORT Nil no support M mud C casing PENETRATION 1 2 3 4 little resistance ranging to very slow progress WATER X not measured O none observed water level water outflow water inflow				SAMPLES, TESTS, ETC U undisturbed sample (mm) D disturbed sample Bs bulk sample E environmental sample N standard penetration test: Nx SPT + sample recovered Nc SPT with solid cone VS vane shear PID PID measurement DP dynamic penetrometer WS water sample PZ piezometer				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			



borehole no:
MW6
sheet 3 of 3

engineering log - groundwater monitoring well

office job no: E2035/2

client: SYDNEY CITY COUNCIL
principal:
project: SITE CONTAMINATION INVESTIGATION
borehole location: WATTLE STREET DEPOT - REFER TO FIGURE 2

hole commenced: 8/11/1996
hole completed: 8/11/1996
logged by: SJK
checked by: *AKA*

drill model and mounting: B40 - TRUCK MOUNTED

R.L. Top of PVC: 4.00

R.L. Surface: 3.27 m

hole diameter: 150mm

slope: -90 DEG

bearing:

datum: AHD

VERSION A1

ENWELL

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method	penetration	support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1	2	3	4										
AOT						-5				FILL: Gravelly CLAY, low to medium plasticity, brown, with sandstone pieces. Borehole MW6 Terminated at 8.10 m			
						-6	9						
						-7	10						
						-8	11						
							12						

METHOD	SUPPORT	SAMPLES, TESTS, ETC	CLASSIFICATION SYMBOLS AND SOIL DESCRIPTION	CONSISTENCY/DENSITY INDEX
HF hollow flight auger AD auger drilling RR roller/tricone W washbore CT cable tool HA hand auger DT diatube *bit shown by suffix B blank bit V V bit T TC bit e.g. ADT	Nil no support M mud C casing PENETRATION 1 2 3 4 WATER X not measured D none observed 	U undisturbed sample (mm) D disturbed sample Bs bulk sample E environmental sample N standard penetration test: Nx SPT + sample recovered Nc SPT with solid cone VS vane shear PID PID measurement DP dynamic penetrometer WS water sample PZ piezometer	based on unified classification system MOISTURE D dry M moist W wet Mp plastic limit Wl liquid limit	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
sheet 1 of 3

engineering log - groundwater monitoring well

office job no: E2035/2

client: SYDNEY CITY COUNCIL
principal:
project: SITE CONTAMINATION INVESTIGATION
borehole location: WAITLE STREET DEPOT - REFER TO FIGURE 2

hole commenced: 8/11/1996
hole completed: 8/11/1996
logged by: SJK
checked by: *rem*

drill model and mounting: B40 - TRUCK MOUNTED
hole diameter: 125mm
slope: -90 DEG
R.L. top of PVC: 3.84
bearing:
R.L. Surface: 3.24 m
datum: AHD

ENWELL VERSION A1

S12

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method	penetration	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4									CONCRETE:			PAVEMENT
ADT									FILL: Clayey GRAVEL, fine to coarse grained, dark brown, roadbase	M		FILL
						1			FILL: Gravelly CLAY, low to medium plasticity, dark brown and brown,	<Mp		
						2			FILL: Gravelly SAND, fine to coarse grained, grey and black, with some clay.	M		
						3			FILL: Sandy GRAVEL, fine to coarse grained, grey, with some clay.			
						4			FILL: Clayey GRAVEL, fine to coarse grained, grey, with some sand.			

METHOD HF hollow flight auger AD auger drilling RA roller/tricone W washbore CT cable tool HA hand auger DT dialube xbit shown by suffix B blank bit V V bit T TC bit e.g. ADT	SUPPORT Nil no support M mud C casing PENETRATION 1 2 3 4 little resistance ranging to very slow progress WATER X not measured D none observed water level water outflow water inflow	SAMPLES, TESTS, ETC U undisturbed sample (mm) D disturbed sample Bs bulk sample E environmental sample N standard penetration test: N+ SPT + sample recovered Nc SPT with solid cone VS vane shear PID PID measurement DP dynamic penetrometer WS water sample PZ piezometer	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

sheet 2 of 3

engineering log - groundwater monitoring well

office job no: E2035/2

client: SYDNEY CITY COUNCIL
principal:
project: SITE CONTAMINATION INVESTIGATION
borehole location: WATILE STREET DEPOT - REFER TO FIGURE 2

hole commenced: 8/11/1996
hole completed: 8/11/1996
logged by: SJK
checked by: TLM

drill model and mounting: B40 - TRUCK MOUNTED

R.L. Top of PVC: 3.84

R.L. Surface: 3.24 m

hole diameter: 125mm

slope: -90 DEG

bearing:

datum: AHD

VERSION A1

ENWELL

S12

16:17:56

3/2/97

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method	penetration	support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material soil type: plasticity or particle characteristics colour, secondary and minor components	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1	2	3	4										
AOT										FILL: Clayey GRAVEL, fine to coarse grained, grey, with some sand.	M		
							5						
							6			FILL: Gravelly CLAY, medium plasticity, brown and grey, with some sand.	>M		
							7			FILL: Sandy CLAY, medium plasticity, brown and grey, with some gravel.			

METHOD HF hollow flight auger AD auger drilling RR roller/tricone W washbore CT cable tool HA hand auger DT diatube x bit shown by suffix B blank bit V V bit T TC bit e.g. ADT	SUPPORT Nil no support M mud C casing PENETRATION 1 2 3 4 little resistance ranging to very slow progress WATER x not measured O none observed ▽ water level ▽ water outflow ▽ water inflow	SAMPLES, TESTS, ETC U undisturbed sample (mm) D disturbed sample Bs bulk sample E environmental sample N standard penetration test: Nx SPT + sample recovered Nc SPT with solid cone VS vane shear PID PID measurement DP dynamic penetrometer WS water sample PZ piezometer	CLASSIFICATION SYMBOLS AND SOIL DESCRIPTION based on unified classification system MOISTURE D dry M moist W wet Mp 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
sheet 3 of 3

engineering log - groundwater monitoring well

office job no: E2035/2

client: SYDNEY CITY COUNCIL	hole commenced: 8/11/1996
principal:	hole completed: 8/11/1996
project: SITE CONTAMINATION INVESTIGATION	logged by: SJK
borehole location: MATILE STREET DEPOT - REFER TO FIGURE 2	checked by: <i>PLA</i>

drill model and mounting: B40 - TRUCK MOUNTED	R.L. Top of PVC: 3.84	R.L. Surface: 3.24 m
hole diameter: 125mm	slope: -90 DEG	bearing:
		datum: AHD

VERSION A1

ENWELL

SI2

16:18:3

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method	penetration	support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material soil type: plasticity or particle characteristics colour, secondary and minor components	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
ADT										FILL: Sandy CLAY, medium plasticity, brown and grey, with some gravel. Borehole MW7 Terminated at 8.10 m			
						-5							
							9						
						-6							
							10						
						-7							
							11						
						-8							
							12						

METHOD HF hollow flight auger AD auger drilling RR roller/tricone W washbore CT cable tool HA hand auger DT diatube *bit shown by suffix B blank bit V V bit T TC bit e.g. ADT	SUPPORT Nil no support M mud C casing PENETRATION 1 2 3 4 little resistance ranging to very slow progress WATER * not measured D none observed water level water outflow water inflow	SAMPLES, TESTS, ETC U undisturbed sample (mm) D disturbed sample Bs bulk sample E environmental sample N standard penetration test: Ns SPI + sample recovered Nc SPI with solid cone VS vane shear PID PID measurement DP dynamic penetrometer WS water sample PZ piezometer	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
---	--	---	---	---



borehole no:
MW8
sheet 1 of 3

engineering log - groundwater monitoring well

office job no: E2035/2

client: SYDNEY CITY COUNCIL
principal:
project: SITE CONTAMINATION INVESTIGATION
borehole location: WATTLE STREET DEPOT - REFER TO FIGURE 2

hole commenced: 11/11/1996
hole completed: 11/11/1996
logged by: SJK
checked by: *TRM*

drill model and mounting: B40 - TRUCK MOUNTED

R.L. Top of PVC: 2.70

R.L. Surface: 2.73 m

hole diameter: 125mm

slope: -90 DEG

bearing:

datum: AHD

ENWELL VERSION A1

S12

16.18.53

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method	penetration	support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material soil type: plasticity or particle characteristics colour, secondary and minor components	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
DT	1 2 3 4	Nil								CONCRETE:			PAVEMENT
ADT										FILL: Sandy Clayey GRAVEL, fine to coarse grained, black and grey, roadbase with concrete and sandstone pieces.	M		FILL Strong petroleum odour.
							1			Some sandstone boulders in fill.			
							2			No drill cuttings returning.			
							3						
							4						

METHOD

HF hollow flight auger
AD auger drilling
RR roller/tricone
W washbore
CT cable tool
HA hand auger
DT diatube
*bit shown by suffix
B blank bit
V V bit
T TC bit
e.g. ADT

SUPPORT

Nil no support M mud
C casing
PENETRATION
1 2 3 4

little resistance ranging to very slow progress
WATER
X not measured D none observed
Δ water level
Δ water outflow
Δ water inflow

SAMPLES, TESTS, ETC

U undisturbed sample (mm)
D disturbed sample
Bs bulk sample
E environmental sample
N standard penetration test:
Nk SPT + sample recovered
Nc SPT with solid cone
VS vane shear
PID PID measurement
OP dynamic penetrometer
WS water sample
PZ piezometer

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



borehole no:
MWB
sheet 3 of 3

engineering log - groundwater monitoring well

office job no: E2035/2

client: SYDNEY CITY COUNCIL
principal:
project: SITE CONTAMINATION INVESTIGATION
borehole location: WATILE STREET DEPOT - REFER TO FIGURE 2

hole commenced: 11/11/1996
hole completed: 11/11/1996
logged by: SJK
checked by: *MLA*

drill model and mounting: B40 - TRUCK MOUNTED R.L. Top of PVC: 2.70 R.L. Surface: 2.73 m
hole diameter: 125mm slope: -90 DEG bearing: datum: AHD

VERSION A1

ENWELL

S12

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method	penetration	support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material soil type: plasticity or particle characteristics colour, secondary and minor components	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4													
ADT										FILL: Sandy Clayey GRAVEL, fine to coarse grained, black and grey, roadbase with concrete and sandstone pieces. Borehole MWB Terminated at 8.10 m			FILL
							-6						
							9						
							-7						
							10						
							-8						
							11						
							-9						
							12						

METHOD

HF hollow flight auger
AD auger drilling
RR roller/tricone
W washbore
CT cable tool
HA hand auger
DT diatube
*bit shown by suffix
B blank bit
V V bit
T TC bit
e.g. ADT

SUPPORT

N11 no support M mud
C casing
PENETRATION
1 2 3 4

little resistance ranging to very slow progress
WATER
X not measured O none observed

water level

water outflow

water inflow

SAMPLES, TESTS, ETC

U undisturbed sample (mm)
D disturbed sample
Bs bulk sample
E environmental sample
N standard penetration test:
N1 SPT + sample recovered
Nc SPT with solid cone
VS vane shear
PIO PIO measurement
DP dynamic penetrometer
WS water sample
PZ piezometer

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
LD medium dense
D dense
VD very dense



borehole no:
MW9
sheet 1 of 2

engineering log - groundwater monitoring well

office job no: E2035/2

client: SYDNEY CITY COUNCIL
principal:
project: SITE CONTAMINATION INVESTIGATION
borehole location: WENTWORTH PARK - REFER TO FIGURE 1

hole commenced: 11/11/1996
hole completed: 11/11/1996
logged by: SJK
checked by: TAA

drill model and mounting: B40 - TRUCK MOUNTED

R.L. Top of PVC: 3.06

R.L. Surface: 3.09 m

hole diameter: 125mm

slope: -90 DEG

bearing:

datum: AHD

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method	penetration	support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material soil type: plasticity or particle characteristics colour, secondary and minor components	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
HF	1 2 3 4	C								CONCRETE:	M		PAVEMENT
										FILL: Gravelly SAND, fine to medium grained, dark brown, with some silt.			FILL
							1						
							2			FILL: Sandy GRAVEL, fine to medium grained, orange and brown, gravel is sandstone.			
							3			FILL: Gravelly SAND, fine to coarse grained, light brown, with some clay and sandstone pieces.			
							4			CLAYEY SAND: fine to medium grained, light brown and yellow, Clay is medium to high plasticity, some shell fragments.	M		ALLUVIUM
							0						
							1						
							2						
							3						
							4			CLAYEY SAND: fine to medium grained, grey, with some shells.			

METHOD
HF hollow flight auger
AD auger drilling
RR roller/tricone
W washbore
CT cable tool
HA hand auger
DT diatube
*bit shown by suffix
B blank bit
V V bit
T TC bit
e.g. ADT

SUPPORT
Nil no support M mud
C casing
PENETRATION
1 2 3 4
little resistance
ranging to
very slow progress
WATER
X not measured D none observed
water level
water outflow
water inflow

SAMPLES, TESTS, ETC
U undisturbed sample (mm)
D disturbed sample
Bs bulk sample
E environmental sample
N standard penetration test:
Nx SPI + sample recovered
Nc SPI with solid cone
VS vane shear
PID PID measurement
DP dynamic penetrometer
WS water sample
PZ piezometer

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

sheet 2 of 2

engineering log -
groundwater monitoring well

office job no: E2035/2

client:	SYDNEY CITY COUNCIL
principal:	
project:	SITE CONTAMINATION INVESTIGATION
borehole location:	WENTWORTH PARK - REFER TO FIGURE 1

hole commenced: 11/11/1996
hole completed: 11/11/1996
logged by: SJK
checked by: *STW*

drill model and mounting: 840 - TRUCK MOUNTED

R.L. id of PVC: 3.05

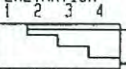
R.L. Surface: 3.09 m

hole diameter: 125mm

slope: -90 DEG

bearing:

datum: AHD

METHOD	SUPPORT	PENETRATION	WATER	SAMPLES, TESTS, ETC.	CLASSIFICATION SYMBOLS AND SOIL DESCRIPTION	CONSISTENCY/DENSITY INDEX
HF AD RR W CT HA DT B V T e.g. ADI	Nil no support M mud PENETRATION 1 2 3 4 little resistance ranging to very slow progress WATER X not measured D none observed ▽ water level ▽-/- water outflow ▽-/+ water inflow			U undisturbed sample (mm) D disturbed sample Bs bulk sample E environmental sample N standard penetration test: Nx SPT + sample recovered Nc SPT with solid cone VS vane shear PiD PiD measurement DP dynamic penetrometer WS water sample PZ piezometer	based on unified classification system MOISTURE O dry M moist W wet Mp plastic limit WL liquid limit	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:
MW10
sheet 1 of 2

engineering log - groundwater monitoring well

office job no: E2035/2

client: SYDNEY CITY COUNCIL
principal:
project: SITE CONTAMINATION INVESTIGATION
borehole location: WENTWORTH PARK - REFER TO FIGURE 1

hole commenced: 11/11/1996
hole completed: 11/11/1996
logged by: SJK
checked by: **TKD**

drill model and mounting: B40 - TRUCK MOUNTED

R.L. Top of PVC: 2.79

R.L. Surface: 2.80 m

hole diameter: 125mm

slope: -90 DEG

bearing:

datum: AHD

method

VERSION A1

ENWELL

SI2

16:25:17

3/2/97

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method	penetration	support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material soil type: plasticity or particle characteristics colour, secondary and minor components	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
Hf	1 2 3 4	C								CONCRETE	M		PAVEMENT
							1			FILL: Clayey SAND, fine to coarse grained, dark brown, with some sandstone gravel, concrete and glass pieces.			FILL
							2		CL	SANDY CLAY: medium plasticity, orange and brown, with some shell fragments and sandstone.			ALLUVIUM
							3						
							4						

METHOD

Hf hollow flight auger
AD auger drilling
RR roller/tricone
W washbore
CT cable tool
HA hand auger
DT diatube
Xbit shown by suffix
B blank bit
V V bit
T TC bit
e.g. ADT

SUPPORT

Nil no support M mud
C casing
PENETRATION
1 2 3 4
little resistance
ranging to
very slow progress
WATER
X not measured D none observed
water level
water outflow
water inflow

SAMPLES, TESTS, ETC

U undisturbed sample (mm)
D disturbed sample
BS bulk sample
E environmental sample
N standard penetration test:
Nx SPI + sample recovered
Nc SPT with solid cone
VS vane shear
PID PID measurement
DP dynamic penetrometer
WS water sample
PZ piezometer

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



borehole no:

MW10

sheet 2 of 2

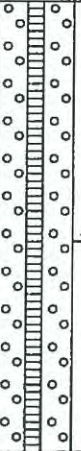
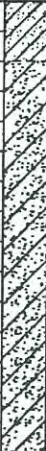
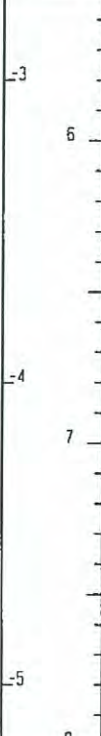
engineering log - groundwater monitoring well

office job no: E2035/2

client: SYDNEY CITY COUNCIL
principal:
project: SITE CONTAMINATION INVESTIGATION
borehole location: WENTWORTH PARK - REFER TO FIGURE 1

hole commenced: 11/11/1996
hole completed: 11/11/1996
logged by: SJK
checked by: *PLW*

drill model and mounting: B40 - TRUCK MOUNTED
hole diameter: 125mm
slope: -90 DEG
R.L. top of PVC: 2.79
bearing:
R.L. Surface: 2.80 m
datum: AHD

method	penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
HF	1	2	3	4								CL SC	SANDY CLAY: medium plasticity, orange and brown, with some shell fragments and sandstone. CLAYEY SAND: fine to medium grained, grey, with some shells.			ALLUVIUM
													Borehole MW10 Terminated at 5.50 m			



borehole no:
MW11
sheet 1 of 2

engineering log - groundwater monitoring well

office job no: E2035/2

client: SYDNEY CITY COUNCIL
principal:
project: SITE CONTAMINATION INVESTIGATION
borehole location: WENTWORTH PARK - REFER TO FIGURE 1

hole commenced: 11/11/1996
hole completed: 11/11/1996
logged by: SJK
checked by: *PLM*

drill model and mounting: B40 - TRUCK MOUNTED
hole diameter: 125mm
slope: -90 DEG
bearing:
R.L. Top of PVC: 2.70
R.L. Surface: 2.75 m
datum: AHD

method	penetration	support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
HF	1 2 3 4	C								TOPS Silty SAND, fine to medium grained, dark brown, with some rootlets. FILL: Sandy Clayey GRAVEL, fine to coarse grained, dark brown, with some sandstone, concrete and pipe.	M		TOPSOIL
							1			FILL: CLAY medium to high plasticity, brown, with some sand and sandstone.			
							2		CL	SANDY CLAY: medium plasticity, light brown and brown, with some shell fragments.			ALLUVIUM
							3						
							4						

METHOD
HF hollow flight auger
AD auger drilling
RR roller/tricone
W washbore
CT cable tool
HA hand auger
DI diatube
*bit shown by suffix
B blank bit
V V bit
T TC bit
e.g. ADT

SUPPORT
Nil no support M mud
C casing
PENETRATION
1 2 3 4
little resistance ranging to very slow progress

WATER
* not measured 0 none observed
water level
water outflow
water inflow

SAMPLES, TESTS, ETC
U undisturbed sample (mm)
D disturbed sample
Bs bulk sample
E environmental sample
N standard penetration test:
Nx SPI + sample recovered
Nc SPI with solid cone
VS vane shear
PID PID measurement
DP dynamic penetrometer
WS water sample
PZ piezometer

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



borehole no:
MW11
sheet 2 of 2

engineering log - groundwater monitoring well

office job no: E2035/2

client: SYDNEY CITY COUNCIL
principal:
project: SITE CONTAMINATION INVESTIGATION
borehole location: WENTWORTH PARK - REFER TO FIGURE 1
hole commenced: 11/11/1996
hole completed: 11/11/1996
logged by: SJK
checked by: TJA

drill model and mounting: B40 - TRUCK MOUNTED
hole diameter: 125mm
slope: -90 DEG
R.L. Top of PVC: 2.70
bearing:
R.L. Surface: 2.75
datum: AHD

ENVWELL VERSION A1
3/ 2/97 16:28:13 S12

method	penetration	support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
HF	1 2 3 4								CL SC	SANDY CLAY: medium plasticity, light brown and brown, with some shell fragments. CLAYEY SAND: fine to medium grained, light grey and grey, with some shells.			ALLUVIUM
										Borehole MW11 Terminated at 5.10 m			

METHOD HF hollow flight auger AD auger drilling RR roller/tricone W washbore CT cable tool HA hand auger DT diatube *bit shown by suffix B blank bit V V bit T TC bit e.g. ADT	SUPPORT Nil no support M mud C casing PENETRATION 1 2 3 4 little resistance ranging to very slow progress WATER * not measured D none observed water level water outflow water inflow	SAMPLES, TESTS, ETC U undisturbed sample (mm) D disturbed sample Bs bulk sample E environmental sample N standard penetration test: Nx SPT + sample recovered Nc SPT with solid cone VS vane shear PID PID measurement DP dynamic penetrometer WS water sample PZ piezometer	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:

MW12

sheet 1 of 2

engineering log - groundwater monitoring well

office job no: E2035/2

client: SYDNEY CITY COUNCIL
principal:
project: SITE CONTAMINATION INVESTIGATION
borehole location: WATTLE STREET

hole commenced: 14/11/1996
hole completed: 14/11/1996
logged by: SJX
checked by: TMA

drill model and mounting: B40 - TRUCK MOUNTED
hole diameter: 125mm
slope: -90 DEG
R.L. top of PVC: 1.79
bearing:
R.L. Surface: 1.81 m
datum: AHD

method	penetration	support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
DT	1 2 3 4	NIL								CONCRETE			PAVEMENT
ADT										FILL: Sandy GRAVEL, fine to coarse grained, brown, white, sandstone subgrade	M		FILL
									SC	CLAYEY SAND: fine to medium grained, brown, clay is medium to high plasticity, some shell fragments.	L		ALLUVIUM

METHOD	SUPPORT	SAMPLES, TESTS, ETC	CLASSIFICATION SYMBOLS AND SOIL DESCRIPTION	CONSISTENCY/DENSITY INDEX
HF hollow flight auger AD auger drilling RR roller/tricone W washbore CT cable tool HA hand auger DT diatube * bit shown by suffix B blank bit V V bit T TC bit e.g. ADT	Nil nil support C casing PENETRATION 1 2 3 4 WATER * not measured 0 none observed water level water outflow water inflow	U undisturbed sample (mm) D disturbed sample Bs bulk sample E environmental sample N standard penetration test: Nx SPT + sample recovered Nc SPT with solid cone VS vane shear PID PID measurement DP dynamic penetrometer WS water sample PZ piezometer	based on unified classification system MOISTURE D dry M moist W wet Wp plastic limit Wl liquid limit	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

sheet 2 of 2

office job no: E2035/2

hole commenced: 14/11/1996

hole completed: 14/11/1996

logged by: SJK

checked by: **724**

client:	SYDNEY CITY COUNCIL
principal:	
project:	SITE CONTAMINATION INVESTIGATION
borehole location:	WATILE STREET

drill model and mounting: B40 - TRUCK MOUNTED

R.L. Top of PVC: 1.79

Alt. Surface:	1.81	0
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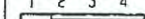
hole diameter: 125mm

slope: -90 DEG

bearing:

datum: AND

method	penetration	support	water	samples, tests, etc	well details	depth metres	graphic log	classification symbol	material soil type: plasticity or particle characteristics colour, secondary and minor components	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1	2	3	4			R.L.						
ADT						3 5		SC CH	CLAYEY SAND: fine to medium grained, brown, clay is medium to high plasticity, some shell fragments. SANDY CLAY: medium to high plasticity, light brown, sand is fine to medium grained.	>wp	S	ALLUVIUM RESIDUAL
						4 6 7 8			Borehole MW12 Terminated at 5.30 m Refusal on sandstone bedrock.			

METHOD	SUPPORT	SAMPLES, TESTS, ETC	CLASSIFICATION SYMBOLS AND SOIL DESCRIPTION	CONSISTENCY/DENSITY INDEX
HF hollow flight auger	Nil no support M mud	U undisturbed sample (mm)		VS very soft
AD auger drillingx	C casing	D disturbed sample		S soft
RR roller/torque cone	PENETRATION	Bs bulk sample		F firm
W washbore	1 2 3 4	E environmental sample	based on unified	St stiff
CT cable tool	 little resistance ranging to very slow progress	N standard penetration test:	classification system	VSt very stiff
HA hand auger		Nx SPT + sample recovered	MOISTURE	H hard
DT diatube	WATER	Nc SPT with solid cone	D dry	Fb friable
*bit shown by suffix	* not measured D none observed	Vs vane shear	M moist	VL very loose
B blank bit	 water level	PID PID measurement	W wet	L loose
V V bit	 water outflow	DP dynamic penetrometer	Wp plastic limit	MD medium dense
T TC bit	 water inflow	WS water sample	Wl liquid limit	D dense
e.g. ADT		PZ piezometer		VD very dense



borehole no:
MW13
sheet 1 of 2

engineering log - groundwater monitoring well

office job no: E2035/2

client: SYDNEY CITY COUNCIL
principal:
project: SITE CONTAMINATION INVESTIGATION
borehole location: WATTLE STREET

hole commenced: 14/11/1996
hole completed: 14/11/1996
logged by: SJK
checked by: TALA

drill model and mounting: B40 - TRUCK MOUNTED

R.L. Top of PVC: 1.77

R.L. Surface: 1.78 m

hole diameter: 125mm

slope: -90 DEG

bearing:

datum: AHD

ENWELL VERSION A1

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method				penetration	support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
DT				1 2 3 4	Nil								CONCRETE:			PAVEMENT
ADT										1			FILL: Sandy GRAVEL, fine to coarse grained, grey, brown, sandstone roadbase	M		FILL
										1		CI	SANDY CLAY: medium plasticity, light brown,	<Wp		ALLUVIUM
										2						
										3		SC	CLAYEY SAND: fine to medium grained, light grey, with some shell pieces.	W		
										4						



borehole no:
MW13
sheet 2 of 2

engineering log - groundwater monitoring well

office job no: E2035/2

client: SYDNEY CITY COUNCIL
principal:
project: SITE CONTAMINATION INVESTIGATION
borehole location: MATTLE STREET

hole commenced: 14/11/1996
hole completed: 14/11/1996
logged by: SJK
checked by: **MLA**

drill model and mounting: B40 - TRUCK MOUNTED

R.L. top of PVC: 1.77

R.L. Surface: 1.78 m

hole diameter: 125mm

slope: -90 DEG

bearing:

datum: AHD

method
penetration
support
water
samples,
tests, etc
well
details
R.L.
depth
metres
graphic log
classification
symbol

ADT

1 2 3 4

ADT

ADT

ADT

ADT

ADT

ADT

ADT

ADT

ADT

material
soil type: plasticity or particle characteristics
colour, secondary and minor components

moisture
condition

consistency/
density index

geological origin,
additional observations
(visual, olfactory)

CLAYEY SAND: fine to medium grained, light grey,
with some shell pieces.
As above becoming light brown

SANDSTONE: fine to medium grained, grey,
extremely-highly weathered

Borehole MW13 Terminated at 5.50 m

BEDROCK

METHOD

HF hollow flight auger
AD auger drillingx
RR roller/tricone
W washbore
CT cable tool
HA hand auger
OI diatube
*bit shown by Suffix
B blank bit
V V bit
T IC bit
e.g. ADT

SUPPORT

Nil no support M mud
C casing
PENETRATION
1 2 3 4
little resistance
ranging to
very slow progress
WATER
* not measured D none observed
water level
water outflow
water inflow

SAMPLES, TESTS, ETC

U undisturbed sample (mm)
D disturbed sample
Bs bulk sample
E environmental sample
N standard penetration test:
N* SPT + sample recovered
Nc SPT with solid cone
VS vane shear
PID PID measurement
OP dynamic penetrometer
WS water sample
PZ piezometer

CLASSIFICATION SYMBOLS AND SOIL DESCRIPTION

based on unified
classification system

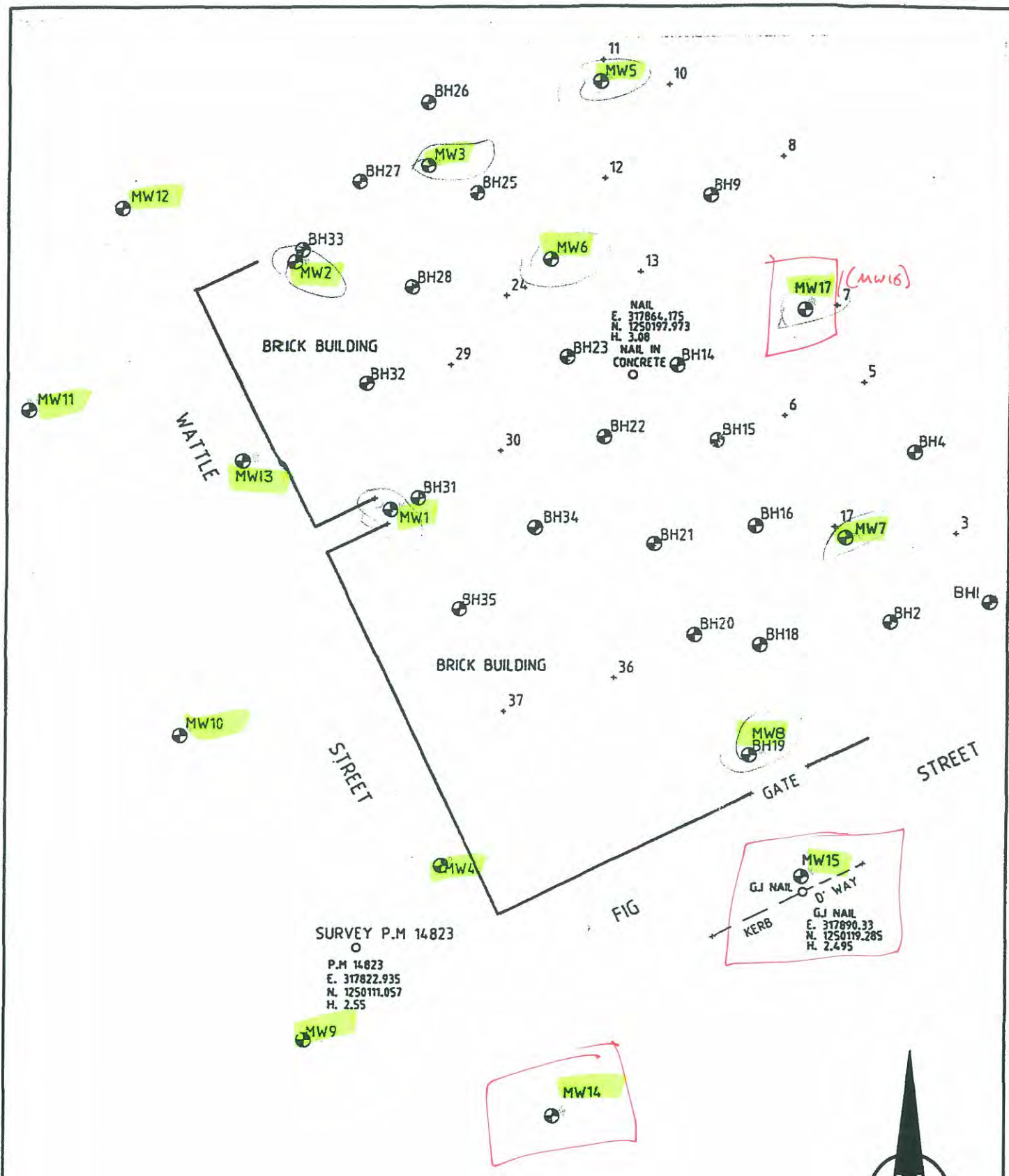
MOISTURE

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

COFFEY 1998



LEGEND

- MW10 MONITORING WELL
- OUTER WALL OF DEPOT

NOTE

MONITORING WELLS MW14, MW15 & MW17 ARE NEW WELLS INSTALLED IN MAY 1998.



Coffey Partners International Pty Ltd

Consulting Engineers, Managers and Scientists
Environment • Geotechnics • Mining • Water Resources ACN 003 692 019

drawn:	TRH/MOD
approved:	YLA
date:	17/7/98
scale:	1:800

**SYDNEY CITY COUNCIL
GROUNDWATER MONITORING AND
WELL INSTALLATION**

MONITORING WELL POSITIONS



FIGURE 2

job no. E2035/6



borehole no:
MW14
sheet 1 of 1

engineering log - groundwater monitoring well

office job no: E2035/6

hole commenced: 2.5.1998

hole completed: 2.5.1998

logged by: TJC

checked by:

client: SYDNEY CITY COUNCIL
principal:
project: GROUNDWATER MONITORING
borehole location: WATTLE STREET DEPOT, ULTIMO

drill model and mounting: R.L. Top of PVC: R.L. Surface: 2.11 m
hole diameter: 100mm slope: -90 DEG bearing: datum: AHD

method	penetration	support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material soil type: plasticity or particle characteristics colour, secondary and minor components	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4													
							2			FILL: ASPHALT FILL: CONCRETE			FILL
							1			FILL: Clayey Sand, fine to medium grained, yellow, brown, sandstone pieces.	0		
							2			SAND: fine to medium grained, grey, brown, trace silt, trace of shells and fine gravel.	M		ALLUVIUM
							3			SANDSTONE: Weathered, brown, Increased hardness.	M		BEDROCK
							4			Borehole MW14 Terminated at 4.00 m			
							5						
							6						
							7						
							8						

METHOD	SUPPORT	SAMPLES, TESTS, ETC	CLASSIFICATION SYMBOLS AND SOIL DESCRIPTION	CONSISTENCY/DENSITY INDEX
HF hollow flight auger AD auger drilling* RR roller/tricone W washbore CT cable tool HA hand auger DT diatube *bit shown by suffix B blank bit V V bit T TC bit e.g. ADT	Nil no support C casing PENETRATION 1 2 3 4 little resistance ranging to very slow progress WATER X not measured O none observed water level water outflow water inflow	U undisturbed sample (mm) D disturbed sample Bs bulk sample E environmental sample N standard penetration test: Nx SPT + sample recovered Nc SPT with solid cone VS vane shear PID PID measurement DP dynamic penetrometer WS water sample PZ piezometer	based on unified classification system MOISTURE D dry M moist N wet Wp plastic limit Wl liquid limit	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:
MW15
Sheet 1 of 1

engineering log - groundwater monitoring well

office job no: E2035/6

hole commenced: 2.5.1998

hole completed: 2.5.1998

logged by: TJC

checked by:

client: SYDNEY CITY COUNCIL
principal:
project: GROUNDWATER MONITORING
borehole location: WATTLE STREET DEPOT, ULTIMO

drill model and mounting:

R.L. Top of PVC:

R.L. Surface: 2.46 m

hole diameter: 100mm

slope: -90 DEG

bearing:

datum: AHD

ENVWELL VERSION A1
SYD40
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method	penetration	support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4										soil type: plasticity or particle characteristics colour, secondary and minor components			
							1			FILL: ASPHALT FILL: CONCRETE FILL: ASPHALT FILL: CONCRETE FILL: ASPHALT FILL: CONCRETE FILL: Clayey Sand, medium grained, brown, with fine to coarse gravel, brown, clay SAND: Silty Sand, fine to medium grained, with fine gravel, shells.	D		FILL
							2						
							3			CLAYEY SAND: fine to medium grained, extremely weathered sandstone, yellow, brown,	M		RESIDUAL
							4						
							5			SANDSTONE: Sandstone bedrock.	D		BEDROCK
							6			Borehole MW15 Terminated at 5.20 m			
							7						
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							98						
							99						
							100						

METHOD

HF hollow flight auger
AD auger drilling
RR roller/tricone
W washbore
CT cable tool
HA hand auger
DT diatube
*bit shown by suffix
B blank bit
V V bit
T TC bit
e.g. ADT

SUPPORT

Nil no support M mud
C casing
PENETRATION
1 2 3 4
little resistance
ranging to
very slow progress
WATER
X not measured D none observed
V water level
V water outflow
V water inflow

SAMPLES, TESTS, ETC

U undisturbed sample (mm)
D disturbed sample
Bs bulk sample
E environmental sample
N standard penetration test:
Nx SPT + sample recovered
Nc SPT with solid cone
VS vane shear
PID PID measurement
DP dynamic penetrometer
WS water sample
PZ piezometer

CLASSIFICATION SYMBOLS AND SOIL DESCRIPTION

based on unified
classification system
MOISTURE
D dry
M moist
W wet
Mp 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



borehole no:
MW16 ~ location of MW17
sheet 1 of 1

engineering log - groundwater monitoring well

office job no: E2035/6

hole commenced: 4.11.1997
hole completed: 4.11.1997
logged by: TJC
checked by:

client: SYDNEY CITY COUNCIL
principal:
project: GROUNDWATER MONITORING
borehole location: WATTLE STREET DEPOT, ULTIMO

drill model and mounting: R.L. Top of PVC: R.L. Surface: 3.49 m
hole diameter: 100mm slope: -90 DEG bearing: datum: AHD

method
penetration
support
water
samples, tests, etc
well details
R.L.
depth metres
graphic log
classification symbol
material
soil type: plasticity or particle characteristics
colour, secondary and minor components
moisture condition
consistency/density index
geological origin, additional observations (visual, olfactory)

method	penetration	support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	soil type: plasticity or particle characteristics colour, secondary and minor components	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4										ASPHALT: CONCRETE:				FILL
				E		3				FILL: Gravelly Sand, sand medium grained, gravel fine to coarse grained, sandstone bits, bricks, brown,	D			
						1				FILL: Clayey Sand, medium grained, medium plasticity, sandstone, orange, brown,	M			
						2				FILL: Gravelly Sand, medium grained, orange, brown, some clay.				
						2				FILL: Clayey Sand, medium grained, low plasticity,				
				E		1				Fill Concrete				
						3				Borehole MW16 Terminated at 3.25 m				
						0								
						4								
						-1								
						5								
						-2								
						6								
						-3								
						7								
						-4								
						8								

No well installed

METHOD	SUPPORT	SAMPLES, TESTS, ETC	CLASSIFICATION SYMBOLS AND SOIL DESCRIPTION	CONSISTENCY/DENSITY INDEX
HF hollow flight auger AD auger drilling RR roller/tricone W washbore CT cable tool HA hand auger DT diatube *bit shown by suffix B blank bit V v bit T TC bit e.g. ADT	Nil no support M mud C casing PENETRATION 1 2 3 4 little resistance ranging to very slow progress WATER * not measured D none observed water level water outflow water inflow	U undisturbed sample (mm) D disturbed sample Bs bulk sample E environmental sample N standard penetration test: Nx SPT + sample recovered Nc SPT with solid cone VS vane shear PID PID measurement DP dynamic penetrometer WS water sample PZ piezometer	based on unified classification system MOISTURE D dry M moist W wet Mp plastic limit Wl liquid limit	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

MW17

sheet 1 of 1

engineering log -
groundwater monitoring well

office job no: E2035/6

hole commenced: 2.5.1998

hole completed: 2.5.1998

logged by: TJC

checked by:

client:	SYDNEY CITY COUNCIL
principal:	
project:	GROUNDWATER MONITORING
borehole location:	MATTLE STREET DEPOT, ULTIMO

drill model and mounting:		R.L.Top of PVC:		R.L.Surface:		3.49	
hole diameter:	100mm	slope:	-90 DEG	bearing:	datum:	ADD	

method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material soil type: plasticity or particle characteristics colour, secondary and minor components	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method		penetration				support	water	samples, tests, etc	well details	R.L.	depth metres	graphic log	classification symbol	material	moisture condition	consistency/density index	geological origin, additional observations (visual, olfactory)
1 2 3 4																	
method																	

TEST BORE REPORT

CLIENT: SYDNEY CITY COUNCIL
PROJECT: GROUNDWATER MONITORING
LOCATION: CNR WATTLE ST & FIG ST, ULTIMO

DATE: 19 FEBRUARY 02
PROJECT No: 30284
SURFACE LEVEL: 4.30m

BORE No: MW18

SHEET 1 of 1

Depth (m)	Description of Strata	Graphic Log	Sampling & Testing				Contamination Observations	Water	Well Construction Details	
			Type	Depth	Tests	Results				
0.03	ASPHALT								Gatic Cover	
0.23	CONCRETE									
	FILLING - grey silty gravelly sand filling. Hydrocarbon odour noted								Filling	
									Bentonite	
2.5	SILTY SAND - grey silty sand								Machine Slotted PVC Screen	
									End Cap	
5.5	SANDY CLAY - yellow sandy clay									
6.0	TEST BORE DISCONTINUED AT 6.0 METRES - target depth reached									

RIG: BARRINGTON 2000

DRILLER: ELLIS

LOGGED: CHAMBERS

CASING: UNCASD

TYPE OF BORING: SPIRAL FLIGHT AUGER

WATER OBSERVATIONS: FREE GROUNDWATER OBSERVED AT 1.11m bgl

REMARKS: REPLACES MW1 PIEZO INSTALLED TO 5.1m 3m SCREEN

SAMPLING & IN SITU TESTING LEGEND

W water
D disturbed soil sample
U_x tube sample (x mm dia.)
S standard penetration test
PID_a ambient PID
PID_h headspace PID
pp pocket penetrometer kPa

CHECKED:

Initials: *[Signature]*

Date: 18/4/02



Douglas Partners
Geotechnics • Environment • Groundwater

TEST BORE REPORT

CLIENT: SYDNEY CITY COUNCIL
PROJECT: GROUNDWATER MONITORING
LOCATION: CNR WATTLE ST & FIG ST, ULTIMO

DATE: 19 FEBRUARY 02
PROJECT No: 30284
SURFACE LEVEL: 4.60m

BORE No: MW19
SHEET 1 of 1

Depth (m)	Description of Strata	Graphic Log	Sampling & Testing				Contamination Observations	Water	Well Construction Details	
			Type	Depth	Tests	Results				
0.23	REINFORCED CONCRETE								Galic Cover Filling Bentonite	
	FILLING - yellow clayey sand filling									
0.8	FILLING - black silty gravelly sand filling									
1.5	SILTY SAND - fine grained, yellow silty sand with some large gravel (?)								Machine Slotted PVC Screen	
4.5	TEST BORE DISCONTINUED AT 4.5 METRES - refusal								End Cap	

RIG: BARRINGTON 2000

DRILLER: ELLIS

LOGGED: CHAMBERS

CASING: UNCASD

TYPE OF BORING: SPIRAL FLIGHT AUGER

WATER OBSERVATIONS: FREE GROUNDWATER OBSERVED AT 0.99m

REMARKS: PIEZO INSTALLED TO 3.1m 2.8m SCREEN

SAMPLING & IN SITU TESTING LEGEND

W water
D disturbed soil sample
U_x tube sample (x mm dia.)
S standard penetration test
PID_a ambient PID
PID_h headspace PID
pp pocket penetrometer kPa

CHECKED:

Initials:

Date: 18/2/02



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TEST BORE REPORT

CLIENT: SYDNEY CITY COUNCIL
PROJECT: GROUNDWATER MONITORING
LOCATION: CNR WATTLE ST & FIG ST, ULTIMO

DATE: 19 FEBRUARY 02
PROJECT No: 30284
SURFACE LEVEL: 4.99m

BORE No: MW20

SHEET 1 of 1

Depth (m)	Description of Strata	Graphic Log	Sampling & Testing				Contamination Observations	Water	Well Construction Details	
			Type	Depth	Tests	Results				
0.15	CONCRETE								Gatic Cover Filling Bentonite	
	FILLING - black silty gravelly sand filling. Wood fragments									
2.7	CLAYEY SAND - grey to yellow clayey sand with minor gravel									
4.0	TEST BORE DISCONTINUED AT 4.0 METRES - refusal								End Cap	

RIG: BARRINGTON 2000

DRILLER: ELLIS

LOGGED: CHAMBERS

CASING: UNCASSED

TYPE OF BORING: SPIRAL FLIGHT AUGER

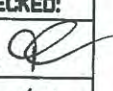
WATER OBSERVATIONS: FREE GROUNDWATER OBSERVED AT 2.05m

REMARKS: PIEZO INSTALLED TO 3.85m 3m SCREEN

SAMPLING & IN SITU TESTING LEGEND

W water
D disturbed soil sample
U_x tube sample (x mm dia.)
S standard penetration test
PID_a ambient PID
PID_h headspace PID
pp pocket penetrometer kPa

CHECKED:

Initials: 

Date: 18/2/02



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TEST BORE REPORT

CLIENT: SYDNEY CITY COUNCIL
PROJECT: GROUNDWATER MONITORING
LOCATION: CNR WATTLE ST & FIG ST, ULTIMO

DATE: 19 FEBRUARY 02
PROJECT No: 30284
SURFACE LEVEL: 3.42m

BORE No: MW21
SHEET 1 of 1

Depth (m)	Description of Strata	Graphic Log	Sampling & Testing				Contamination Observations	Water	Well Construction Details	
			Type	Depth	Tests	Results				
0.08	ASPHALT CONCRETE								Gatic Cover Filling Bentonite	
0.40	FILLING - fine grained, brown, clayey gravelly sand - crushed sandstone filling									
0.7	CLAYEY SAND - grey clayey sand - oily sheen present									
2.5	CLAYEY SAND - mottled grey and brown clayey sand								Machine Slotted PVC Screen	
2.8	TEST BORE DISCONTINUED AT 2.8 METRES - refusal									
									End Cap	

RIG: BARRINGTON 2000

DRILLER: ELLIS

LOGGED: CHAMBERS

CASING: UNCASSED

TYPE OF BORING: SPIRAL FLIGHT AUGER

WATER OBSERVATIONS: FREE GROUNDWATER OBSERVED AT 1.15m

REMARKS: PIEZO INSTALLED TO 2.8m 2.6m SCREEN

SAMPLING & IN SITU TESTING LEGEND

W water
D disturbed soil sample
U_x tube sample (x mm dia.)
S standard penetration test
PID_a ambient PID
PID_h headspace PID
pp pocket penetrometer kPa

CHECKED:

Initials:

Date: 18/2/02



Douglas Partners
Geotechnics • Environment • Groundwater

TEST BORE REPORT

CLIENT: SYDNEY CITY COUNCIL
PROJECT: GROUNDWATER MONITORING
LOCATION: CNR WATTLE ST & FIG ST, ULTIMO

DATE: 19 FEBRUARY 02
PROJECT No: 30284
SURFACE LEVEL: 4.32m

BORE No: MW22

SHEET 1 of 1

Depth (m)	Description of Strata	Graphic Log	Sampling & Testing				Contamination Observations	Water	Well Construction Details	
			Type	Depth	Tests	Results				
0.15	CONCRETE								Gatic Cover	
1.0	FILLING - grey clayey sand and gravel filling									
1.0	FILLING - yellow crushed sandstone filling								Filling	
3.0	CLAYEY SAND - yellow clayey, medium grained, sand								Bentonite	
3.0									Machine Slotted PVC Screen	
6.0	TEST BORE DISCONTINUED AT 6.0 METRES - target depth reached								End Cap	

RIG: BARRINGTON 2000

DRILLER: ELLIS

LOGGED: CHAMBERS

CASING: UNCASD

TYPE OF BORING: SPIRAL FLIGHT AUGER

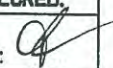
WATER OBSERVATIONS: FREE GROUNDWATER OBSERVED AT 1.90m

REMARKS: PIEZO INSTALLED TO 5.3m, 3m SCREEN, LOCATED IN PARK DRIVEWAY CLOSE TO FIG STREET

SAMPLING & IN SITU TESTING LEGEND

W water
D disturbed soil sample
U_x tube sample (x mm dia.)
S standard penetration test
PID_a ambient PID
PID_h headspace PID
pp pocket penetrometer kPa

CHECKED:

Initials: 

Date: 18/4/02



Douglas Partners
Geotechnics • Environment • Groundwater

TEST BORE REPORT

CLIENT: SYDNEY CITY COUNCIL
PROJECT: GROUNDWATER MONITORING
LOCATION: CNR WATTLE ST & FIG ST, ULTIMO

DATE: 19 FEBRUARY 02
PROJECT No: 30284
SURFACE LEVEL: 4.16m

BORE No: MW23

SHEET 1 of 1

Depth (m)	Description of Strata	Graphic Log	Sampling & Testing				Contamination Observations	Water	Well Construction Details	
			Type	Depth	Tests	Results				
0.15	CONCRETE								Gatic Cover	
1.0	FILLING - grey clayey sand and gravel filling								Filling	
2.0	FILLING - white crushed sandstone filling									
2.0	CLAYEY SAND - yellow to grey, clayey, medium grained sand								Bentonite	
3.0									Machine Slotted PVC Screen	
4.0										
5.0										
6.0	TEST BORE DISCONTINUED AT 6.0 METRES - target depth reached								End Cap	

RIG: BARRINGTON 2000

DRILLER: ELLIS

LOGGED: CHAMBERS

CASING: UNCASD

TYPE OF BORING: SPIRAL FLIGHT AUGER

WATER OBSERVATIONS: FREE GROUNDWATER OBSERVED AT 1.65m

REMARKS: PIEZO INSTALLED TO 5.5m 3m SCREEN

SAMPLING & IN SITU TESTING LEGEND

W water
D disturbed soil sample
U_x tube sample (x mm dia.)
S standard penetration test
PID_a ambient PID
PID_h headspace PID
pp pocket penetrometer kPa

CHECKED:

Initials: 

Date: 18/2/02



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BOREHOLE LOG

CLIENT: City of Sydney Council
PROJECT: Groundwater Investigation
LOCATION: 10 Wattle Street, Ultimo

SURFACE LEVEL: 2.83
EASTING:
NORTHING:
DIP/AZIMUTH: 90°/-

BORE No: 31
PROJECT No: 37334
DATE: 08 Sep 04
SHEET 1 OF 2

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing				Water	Well Construction Details
				Type	Depth	Sample	Results & Comments		
0.12		ASPHALT/BITUMEN							Gatic cover Bentonite
		FILLING - brown sandy clayey, fine gravel filling (petroleum hydrocarbon odour) - brick fragments		A	0.5				
				A	1.0				
		FILLING - brown clayey sandy gravel filling, brick fragments							
		FILLING - grey sand filling, with trace of clay, fragments of brick. Moist							
		FILLING - brown clayey sandy gravel filling. Wet		A	2.0				
		FILLING - dark grey sandy gravel filling. Wet		A	3.0				
		FILLING - light brown/grey clayey sandy gravel filling, with sandstone fragments (crushed sandstone filling). Wet		A	4.0				Backfilled with gravel
		FILLING - grey clayey sandy gravel filling, with bands. Wet							
				A	5.0				
		FILLING - grey/brown clayey sandy gravel filling, with gravel bands. Wet							Machine slotted PVC screen
				A	6.0				
				A	7.0				
		SANDSTONE BOULDER - medium strength, fresh, light grey and yellow brown medium to coarse grained sandstone			7.4				
		FILLING - grey sand and fine gravel filling		C					
					8.85				
		SANDSTONE - extremely low strength, extremely weathered sandstone			9.0				
		SANDSTONE - very high and high strength, fresh, slightly fractured, light grey medium to coarse grained sandstone		C	9.51		PL(A) = 3.5MPa		

RIG: Scout

DRILLER: Driver

LOGGED: Brown/Parmar

CASING: GL to 7.4m

TYPE OF BORING: Spiral flight auger to 7.6m; NMLC-Coring 7.4-8.85m & 9.0-11.65m; Casing advancer to 9.0m

WATER OBSERVATIONS: Groundwater table at 1.9m

REMARKS:

SAMPLING & IN SITU TESTING LEGEND			
A	Auger sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	PID	Photo ionisation detector
B	Bulk sample	S	Standard penetration test
U	Tube sample (x mm dia.)	PL	Point load strength is(50) MPa
W	Water sample	V	Shear Vane (kPa)
C	Core drilling	Δ	Water seep
		≡	Water level

CHECKED
Initials: <i>GP</i>
Date: 23/6/05



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BOREHOLE LOG

CLIENT: City of Sydney Council
PROJECT: Groundwater Investigation
LOCATION: 10 Wattle Street, Ultimo

SURFACE LEVEL: 2.83
EASTING:
NORTHING:
DIP/AZIMUTH: 90°/--

BORE No: 31
PROJECT No: 37334
DATE: 08 Sep 04
SHEET 2 OF 2

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing				Water	Well Construction Details	
				Type	Depth	Sample	Results & Comments			
	10.0	SANDSTONE - High and medium strength, fresh, slightly fractured, light grey medium to coarse grained sandstone		C	10.57		PL(A) = 0.9MPa		11 End cap	
	10.7 10.8	SILTSTONE - medium strength, fresh, fractured, dark grey siltstone								
		SANDSTONE - High strength, fresh, unbroken, light grey medium to coarse grained sandstone			11.4		PL(A) = 1.8MPa			
	11.65	Bore discontinued at 11.65m			11.65					
	12									
	13									
	14									
	15									
	16									
	17									
	18									
	19									

RIG: Scout

DRILLER: Driver

LOGGED: Brown/Parmar

CASING: GL to 7.4m

TYPE OF BORING: Spiral flight auger to 7.6m; NMLC-Coring 7.4-8.85m & 9.0-11.65m; Casing advancer to 9.0m

WATER OBSERVATIONS: Groundwater table at 1.9m

REMARKS:

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	PID	Photo ionisation detector
B	Bulk sample	S	Standard penetration test
U	Tube sample (x mm dia.)	PL	Point load strength Is(50) MPa
W	Water sample	V	Shear Vane (kPa)
C	Core drilling	Δ	Water seep
		£	Water level

CHECKED

Initials: *AP*

Date: 23/6/05



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BOREHOLE LOG

CLIENT: City of Sydney Council
PROJECT: Groundwater Investigation
LOCATION: 10 Wattle Street, Ultimo

SURFACE LEVEL: 3.25
EASTING:
NORTHING:
DIP/AZIMUTH: 90°/-

BORE No: 32
PROJECT No: 37334
DATE: 14 Sep 04
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing			Water	Well Construction Details
				Type	Depth	Sample		
3.04	0.04	CONCRETE						Gatic cover
3.14	0.14	CONCRETE						Bentonite
3.24	0.24	FILLING - brick rubble		A	0.5			
		FILLING - brown sandy clayey gravel filling		A	1.0			
	1.3	FILLING - yellow/brown clayey sand filling		A	2.0			
	2.0	FILLING - brown clayey sand filling		A	2.5			
		- wet, no obvious odours						
	2.8	SANDSTONE - low strength sandstone (boulder) - SFA refusal at 2.8m						
	3.1	FILLING - brown clayey sand filling. Wet						
		- strong hydrocarbon odour (possibly diesel) free product in drilling water						
	4.3	SANDSTONE - grey medium strength sandstone						Backfilled with gravel
	4.5	SANDSTONE - medium strength, slightly weathered, unbroken, light red brown grey fine grained sandstone		C	4.5			Machine slotted PVC screen
					4.78		PL(A) = 0.6MPa	
					5.0			
					5.86		PL(A) = 0.7MPa	
	6.17	SANDSTONE - medium then high strength, slightly weathered then fresh, slightly fractured, light yellow brown and grey white medium to coarse grained sandstone		C	6.35		PL(A) = 0.6MPa	
					7.03		PL(A) = 1.4MPa	
	7.2	Bore discontinued at 7.2m			7.2			End cap

RIG: Bobcat

DRILLER: Mawhood

LOGGED: Brown/Parmar

CASING: GL to 3.0m

TYPE OF BORING: Diatube to 0.2m; Spiral flight auger to 3.0m; Rotary (water) to 4.5m; NMLC-Coring to 7.2m

WATER OBSERVATIONS: Free groundwater observed at 2.6m whilst augering

REMARKS:

SAMPLING & IN SITU TESTING LEGEND			
A	Auger sample	pp	Pocket penetrometer (kPa)
B	Disturbed sample	PID	Photo ionisation detector
D	Bulk sample	S	Standard penetration test
U	Tube sample (x mm dia.)	PL	Point load strength Is(50) MPa
W	Water sample	V	Shear Vane (kPa)
C	Core drilling	D	Water seep
			Water level

CHECKED	
Initials:	AL
Date:	23/6/05



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BOREHOLE LOG

CLIENT: City of Sydney Council
PROJECT: Groundwater Investigation
LOCATION: 10 Wattle Street, Ultimo

SURFACE LEVEL: 2.06
EASTING:
NORTHING:
DIP/AZIMUTH: 90°/-

BORE No: 33
PROJECT No: 37334
DATE: 8-9 Sept 04
SHEET 1 OF 2

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing				Water	Well Construction Details
				Type	Depth	Sample	Results & Comments		
2	0.1	BITUMEN FILLING - grey/brown sandy gravel filling, fragments of concrete, slightly hydrocarbon odour		E	0.5				Gatic cover Bentonite
1				E	1.0				
				E/Z*	1.5				
2		- grey brown							
2.5		FILLING - black sandy gravel filling, strong hydrocarbon odour. Free hydrocarbon product		E	2.5				
2.8		FILLING - yellow clayey sandy gravel filling		E	3.0				
3									
3.8		FILLING - brown sandy clayey gravel filling (crushed sandstone filling)		E	4.0				
4.5		FILLING - brown clayey sand filling		S	4.5		7.3, 15 N = 18		4 Backfilled with gravel
4.9		FILLING - light grey sand filling (weathered sandstone?)			4.95				
5.0		FILLING - orange/brown clayey sand gravel filling (crushed sandstone filling?), layers of grey sand		S	5.5		5.5, 1 N = 6		
6.0		FILLING - grey sandy gravel filling (crushed sandstone filling)			5.95				
7				S	7.4 7.45		20/50mm refusal		Machine slotted PVC screen
8		- grey sandy gravel							
9.0		SANDSTONE - extremely low strength sandstone		S	9.25 9.3 9.41		20/50mm refusal PL(A) = 0.9MPa		
9.3		SANDSTONE - medium strength, fresh, slightly fractured, light grey fine grained sandstone with siltstone flakes		C					

RIG: Scout

DRILLER: Paul/Driver

LOGGED: Brown/Parmar

CASING:

TYPE OF BORING: Spiral flight auger to 4.0m; Rotary to 7.4m; Casing Advancer to 9.3m; NMLC-Coring to 11.8m

WATER OBSERVATIONS: Free groundwater observed at 1.8m whilst augering

REMARKS: E = Environmental sample. Z* indicates duplicate sample taken at 1.5m

SAMPLING & IN SITU TESTING LEGEND			
A	Auger sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	PID	Photo ionisation detector
B	Bulk sample	S	Standard penetration test
U	Tube sample (x mm dia.)	PL	Point load strength Is(50) MPa
W	Water sample	V	Shear Vane (kPa)
C	Core drilling	Δ	Water seep
		□	Water level

CHECKED	
Initials:	07.
Date:	23/6/05



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BOREHOLE LOG

CLIENT: City of Sydney Council
PROJECT: Groundwater Investigation
LOCATION: 10 Wattle Street, Ultimo

SURFACE LEVEL: 2.06
EASTING:
NORTHING:
DIP/AZIMUTH: 90°/---

BORE No: 33
PROJECT No: 37334
DATE: 8-9 Sept 04
SHEET 2 OF 2

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing				Water	Well Construction Details	
				Type	Depth	Sample	Results & Comments			
10.0		SANDSTONE - high strength, slightly weathered then fresh, slightly fractured, light grey medium to coarse grained sandstone		C	10.24		PL(A) = 1.2MPa			
11					10.8		PL(A) = 1.7MPa			
11.8					11.48		PL(A) = 2.1MPa			
		Bore discontinued at 11.8m			11.8			End cap		
12										
13										
14										
15										
16										
17										
18										
19										

RIG: Scout

DRILLER: Paul/Driver

LOGGED: Brown/Parmar

CASING:

TYPE OF BORING: Spiral flight auger to 4.0m; Rotary to 7.4m; Casing Advancer to 9.3m; NMLC-Coring to 11.8m

WATER OBSERVATIONS: Free groundwater observed at 1.8m whilst augering

REMARKS: E = Environmental sample. Z* indicates duplicate sample taken at 1.5m

SAMPLING & IN SITU TESTING LEGEND

A	Auger sample	pp	Pocket penetrometer (kPa)
B	Disturbed sample	PID	Photo ionisation detector
D	Bulk sample	S	Standard penetration test
U	Tube sample (x mm dia.)	PL	Point load strength Is(50) MPa
W	Water sample	V	Shear Vane (kPa)
C	Core drilling	Δ	Water seep
		▽	Water level

CHECKED

Initials: *JP*

Date: 23/6/05



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BOREHOLE LOG

CLIENT: City of Sydney Council
PROJECT: Groundwater Investigation
LOCATION: 10 Wattle Street, Ultimo

SURFACE LEVEL: - 2.63
EASTING:
NORTHING:
DIP/AZIMUTH: 90°/-

BORE No: 34
PROJECT No: 37334
DATE: 20 Sep 04
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing			Water	Well Construction Details
				Type	Depth	Sample	Results & Comments	
	0.3	CONCRETE - reinforced concrete with 5mm diameter steel bars						Gatic cover
	0.5	FILLING - grey sand and gravel filling						Bentonite
	0.5	FILLING - brown sand and gravel filling		E	0.6			
	1.0			E	1.0			
	1.2	FILLING - crushed sandstone filling, with sand and gravel		E	1.5			
	2.0			E	2.0			
	2.5			E	2.5			
	2.9	FILLING - crushed sandstone filling						
	4.5			S	4.5		7.7, 12 N = 19	Backfilled with gravel
	4.95				4.95			Machine slotted PVC screen
	5.5	SANDSTONE - low strength sandstone						
	6.0	SANDSTONE - medium strength, slightly weathered, unbroken, light brown grey fine grained sandstone			6.0 6.1		PL(A) = 0.8MPa	
	6.35	SANDSTONE - medium and medium to high strength, slightly weathered than fresh, slightly fractured to unbroken, light grey medium grained sandstone			6.86		PL(A) = 1MPa	
	7.59			C	7.59		PL(A) = 0.6MPa	
	8.37				8.37		PL(A) = 0.7MPa	
	8.65	Bore discontinued at 8.65m			8.65			End cap

RIG: Scout

DRILLER: Paul

LOGGED: Brown/Parmar

CASING:

TYPE OF BORING: Diatube to 0.3m; Spiral flight auger to 3.0m; Casing Advancer to 6.0m; NMLC-Coring to 8.65m

WATER OBSERVATIONS: Free groundwater observed at 2.0m whilst augering

REMARKS: E = Environmental sample

SAMPLING & IN SITU TESTING LEGEND			
A	Auger sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	PID	Photo ionisation detector
B	Bulk sample	S	Standard penetration test
U	Tube sample (x mm dia.)	PL	Point load strength Is(50) MPa
W	Water sample	V	Shear Vane (kPa)
C	Core drilling	>	Water seep
		≡	Water level

CHECKED	
Initials:	AP
Date:	23/6/05



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BOREHOLE LOG

CLIENT: City of Sydney Council
PROJECT: Groundwater Investigation
LOCATION: 10 Wattle Street, Ultimo

SURFACE LEVEL: 2.78
EASTING:
NORTHING:
DIP/AZIMUTH: 90°/-

BORE No: 35
PROJECT No: 37334
DATE: 10-15 Sept 04
SHEET 1 OF 2

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing			Water	Well Construction Details
				Type	Depth	Sample		
	0.2	CONCRETE	△-△					Gatic cover Bentonite
		FILLING - brown sandy clay filling, with fine gravel		E	0.5	*Z5		
	0.6	FILLING - light brown sand filling, with some gravel		E	1.0			
	1.3	FILLING - yellow brown clayey sand filling		E	1.5			
	2.0	FILLING - grey/brown sandy clayey gravel filling		E	2.5			
	3.2	FILLING - grey crushed sandstone filling, with some gravel		E	3.5			
	3.5	FILLING - grey brown crushed sandstone filling, with some roadbase gravel		E	4.5			Backfilled with gravel
	5.2	FILLING - crushed sandstone filling, with some boulders		E	5.5			Machine slotted PVC screen
				S	6.0			
					6.02			20/20mm refusal, bouncing
	7.6	SANDSTONE - extremely low strength sandstone		S	7.7			25/70mm refusal
	7.8	SANDSTONE - high strength, fresh, slightly fractured, light grey medium grained sandstone			7.77			
					7.8			
				C	8.23			PL(A) = 1.1MPa
					8.85			PL(A) = 1.3MPa
	9.1			C	9.1			
					9.66			PL(A) = 1.4MPa

RIG: Scout

DRILLER: Driver/Paul

LOGGED: Brown/Parmar

CASING:

TYPE OF BORING: Diatube to 0.2m; Spiral flight auger to 5.5m; Casing Advancer to 7.8m; NMLC-Coring to 11.1m

WATER OBSERVATIONS: Free groundwater observed at 2.0m whilst augering

REMARKS: *Z5 duplicate at 0.5m

SAMPLING & IN SITU TESTING LEGEND			
A	Auger sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	PID	Photo ionisation detector
B	Bulk sample	S	Standard penetration test
U	Tube sample (x mm dia.)	PL	Point load strength (s(50) MPa)
W	Water sample	V	Shear Vane (kPa)
C	Core drilling	D	Water seep
		W	Water level

CHECKED
Initials: <i>JP</i>
Date: 23/6/05



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BOREHOLE LOG

CLIENT: City of Sydney Council
PROJECT: Groundwater Investigation
LOCATION: 10 Wattle Street, Ultimo

SURFACE LEVEL: 2.78
EASTING:
NORTHING:
DIP/AZIMUTH: 90°/—

BORE No: 35
PROJECT No: 37334
DATE: 10-15 Sept 04
SHEET 2 OF 2

[illegible]

RIG: Scout

DRILLER: Driver/Paul

LOGGED: Brown/Parmar

CASING:

TYPE OF BORING: Diatube to 0.2m; Spiral flight auger to 5.5m; Casing Advancer to 7.8m; NMLC-Coring to 11.1m

WATER OBSERVATIONS: Free groundwater observed at 2.0m whilst augering

REMARKS: *Z5 duplicate at 0.5m

SAMPLING & IN SITU TESTING LEGEND			
A	Auger sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	PID	Photo ionisation detector
B	Bulk sample	S	Standard penetration test
U	Tube sample (x mm dia.)	PL	Point load strength (50) MPa
W	Water sample	V	Shear Vane (kPa)
C	Core drilling	▷	Water seep
		≡	Water level

CHECKED
Initials: <i>GP</i>
Date: 23/6/05



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BOREHOLE LOG

CLIENT: City of Sydney Council
PROJECT: Groundwater Investigation
LOCATION: 10 Wattle Street, Ultimo

SURFACE LEVEL: -- 3.19
EASTING:
NORTHING:
DIP/AZIMUTH: 90°/--

BORE No: 36
PROJECT No: 37334
DATE: 16 Sep 04
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing				Water	Well Construction Details
				Type	Depth	Sample	Results & Comments		
		FILLING - crushed sandstone and boulder filling		E	0.7				Gatic cover Bentonite
	1.15	SANDSTONE BOULDER		E	1.0				
	2.27			C	3.1		2, 1 N=1		
	3.47	FILLING - high strength, moderately weathered, yellow brown sandstone boulder, with brick fragments at top		S	3.55				Backfilled with gravel
	4.8	SANDSTONE - medium strength sandstone		S	4.6		10,60/90mm refusal bouncing		Machine slotted PVC screen
	6.0	SANDSTONE - high strength, slightly weathered then fresh, light brown grey and grey medium grained sandstone		C	6.0		PL(A) = 1.4MPa		
	7.24				6.07		PL(A) = 1.5MPa		
	8.2	Bore discontinued at 8.2m			7.24		PL(A) = 1.5MPa		
					8.08		PL(A) = 1.6MPa		End cap
					8.2				

RIG: Scout

DRILLER: Paul

LOGGED: Brown/Parmar

CASING:

TYPE OF BORING: Spiral flight auger to 1.15m; Casing Advancer to 6.0m; NMLC-Coring to 8.2m

WATER OBSERVATIONS: Free groundwater observed at 2.0m whilst augering

REMARKS: E = Environmental sample; *Z4 denotes field replicate sample Z4 taken at 1.0m

SAMPLING & IN SITU TESTING LEGEND			
A Auger sample	pp Pocket penetrometer (kPa)		
D Disturbed sample	PID Photo ionisation detector		
B Bulk sample	S Standard penetration test		
U Tube sample (x mm dia.)	PL Point load strength Is(50) MPa		
W Water sample	V Shear Vane (kPa)		
C Core drilling	Δ Water seep	¶ Water level	

CHECKED	
Initials:	<i>[Signature]</i>
Date:	23/6/05



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BOREHOLE LOG

CLIENT: City of Sydney Council
PROJECT: Groundwater Investigation
LOCATION: 10 Wattle Street, Ultimo

SURFACE LEVEL: 6.24
EASTING:
NORTHING:
DIP/AZIMUTH: 90°/-

BORE No: 37
PROJECT No: 37334
DATE: 03 Sep 04
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing				Water	Well Construction Details
				Type	Depth	Sample	Results & Comments		
6	0.12	CONCRETE							Gatic cover
	0.25	FILLING - fine gravel filling							Bentonite
		FILLING - grey gravel filling							
	0.7			A/E	0.5		slight chemical odour		
	0.9	FILLING - dark grey-brown sandy clayey gravel filling							
1	0.9	FILLING - crushed sandstone filling		A/E	1.0				
	1.2	SANDSTONE - extremely low strength sandstone (weathered clay bands)		A/E	1.5				
2	2.0	SANDSTONE - very low strength sandstone		A/E	2.0	Z1			2 Backfilled with gravel
	2.5	SANDSTONE - low strength sandstone		A	2.5				
	2.7	SANDSTONE - medium then high strength, moderately and slightly weathered, slightly fractured, yellow to red brown and grey, medium grained sandstone			2.7		PL(A) = 0.7MPa		
					2.9				
					3.62		PL(A) = 1.6MPa		Machine slotted PVC screen
	3.77								
	4.07	SANDSTONE - low and medium strength, moderately and slightly weathered, fractured to slightly fractured, yellow brown fine grained sandstone, with extremely low and very low strength bands		C	4.22		PL(A) = 0.6MPa		
		- dark grey brown black colour from 4.76 to 5.0m			4.63		PL(A) = 0.2MPa		
					4.95		PL(A) = 0.3MPa		
					5.08		PL(A) = 0.9MPa		
					5.58		PL(A) = 0.9MPa		End cap
	5.7	Bore discontinued at 5.7m			5.7				

RIG: Scout

DRILLER: Driver

LOGGED: Brown/Parmar

CASING: GL to 2.7m

TYPE OF BORING: Diatube to 0.12m; Spiral flight auger to 2.7m; NMLC-Coring to 5.7m

WATER OBSERVATIONS: No free groundwater observed whilst augering

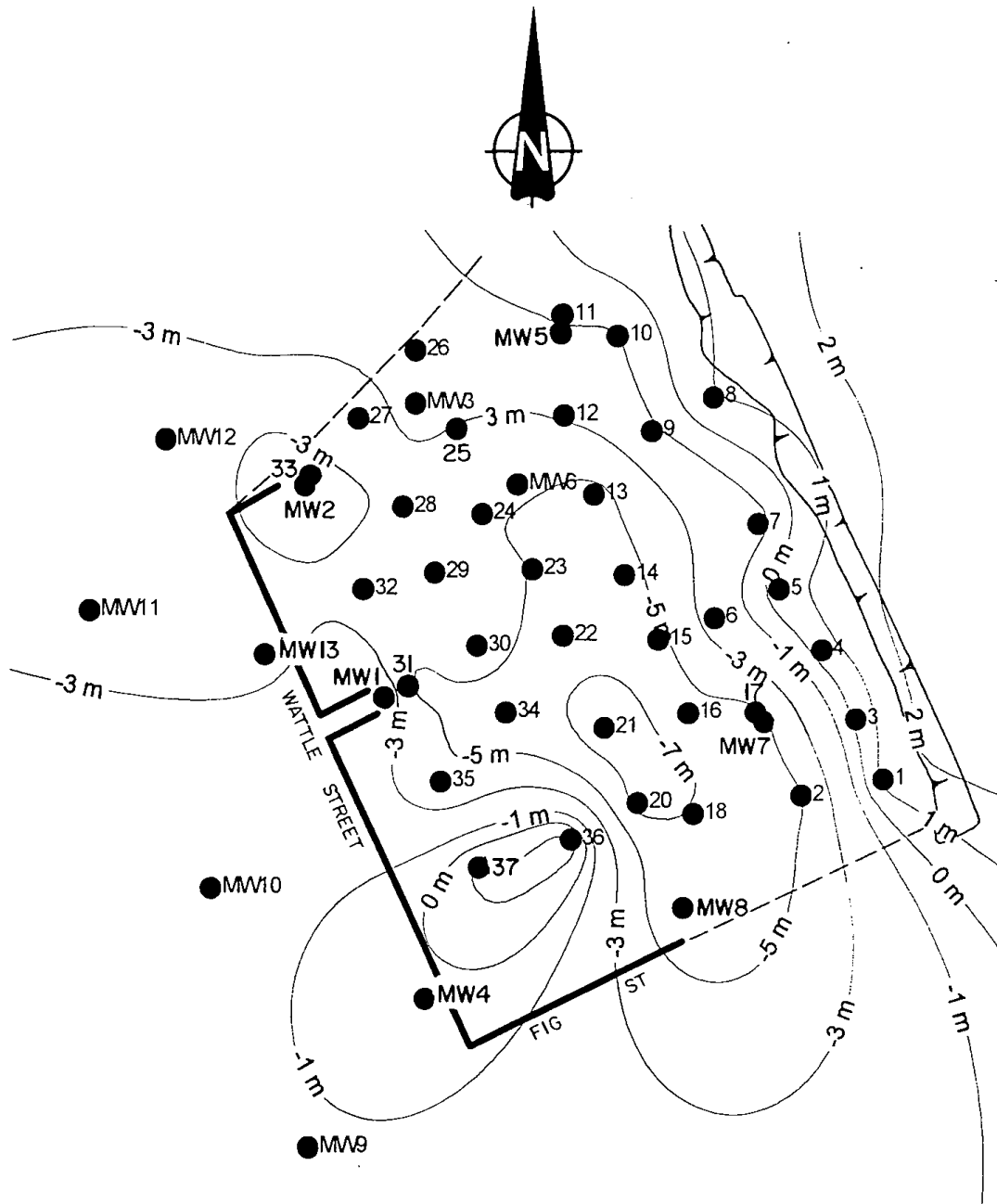
REMARKS: E = Environmental sample

SAMPLING & IN SITU TESTING LEGEND			
A	Auger sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	PID	Photo ionisation detector
B	Bulk sample	S	Standard penetration test
U	Tube sample (x mm dia.)	PL	Point load strength Is(50) MPa
W	Water sample	V	Shear Vane (kPa)
C	Core drilling	Δ	Water seep
		W	Water level

CHECKED
Initials: <i>BT</i>
Date: 23/6/05



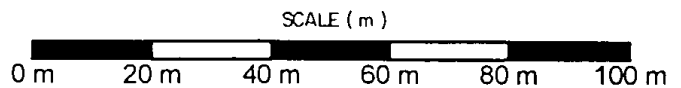
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LEGEND

- 18 AIR-TRACK BOREHOLE
- MW8 ENVIRONMENTAL MONITORING WELL
- APPROX LINE OF BUILDING FACADE
ALONG WATTLE & FIG STREETS
- SANDSTONE OUTCROP
- SITE BOUNDARY

NOTE: CONTOURS ARE APPROXIMATE ONLY &
INTERPRETED FROM DATA AT BOREHOLE LOCATIONS



Coffey Partners International Pty Ltd

Consulting Engineers, Managers and Scientists
Environment • Geotechnics • Mining • Water Resources ACN 003 692 018

drawn:	TRH/SW
approved:	
date:	
scale:	AS SHOWN

**SYDNEY CITY COUNCIL
SITE CONTAMINATION ASSESSMENT
WATTLE STREET DEPOT
SANDSTONE BEDROCK CONTOURS (RLm AHD)**



FIGURE 4

Job no. E2035/3

Appendix C

Laboratory Results from DP (2014)

Statistical Summary																																													
Number of Results	32	32	32	32	32	32	32	32	32	52	52	52	52	52	52	52	52	52	52	52	52	52	55			52	52	55	55	55	55	55	55	55	55	55	55	55	3	3					
Number of Detects	26	5	32	32	<8	32	22	32	32	10	51	51	43	35	40	44	48	51	47	48	48	35	49	38	44	41		48	49	4	22	3	20	36	32	2	35	3	3	4	3	3	0	0	
Minimum Concentration	<4	<0.4	3	3	0	3	0	1	1	0.06	0.06	<0.5	<0.1	<0.1	<0.1	<0.1	<0.95	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<25	<50	<50	<100	<2	<15	<2	<1	<3	<1	<3	<1	<3		
Minimum Detect	4	0.4	3	3	0	3	2	0	0.1	0.06	0.1	0.1	0.1	0.1	0.1	0.1	0.06	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
Maximum Concentration	4	0.4	3	3	0	3	2	0	0.1	0.06	0.1	0.1	0.1	0.1	0.1	0.1	0.06	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Maximum Concentration	250	3	220	590	500	8.4	230	1400	11000	610	430	75	750	530	430	590	170	440	47	1300	640	190	2400	2400	2400	2200	1300	250	12000	250	12000	36000	5500	110	50900	7	3	20	30	17	47	<1	<1	<1	<1
Maximum Detect	250	3	220	590	500	8.4	230	1400	11000	610	430	75	750	530	430	590	170	440	47	1300	640	190	2400	2400	2400	2200	1300	250	12000	250	12000	36000	5500	110	50900	7	3	20	30	17	47	<1	<1	<1	<1
Average Concentration	25	0.39	25	71	110	0.84	20	146	527	44	16	4.6	28	32	32	62	13	28	3.3	73	23	1.5	48	48	48	89	72	23	683	21	646	2819	597	15	3746	0.23	0.62	0.64	1.7	0.93	2.6	0.5	0.5		
Geometric Average	9.7	0.26	14	35	72	0.24	9.7	81	48	6.9	0.78	0.74	1.8	4.1	4.5	4.5	1.9	3.8	0.56	8	1.1	2.2	1.1	1.1	5.4	8.2	15	77	14	74	475	196	13	760	0.11	0.55	0.29	1.1	0.57	1.7	0.5	0.5			
Median Concentration	9	0.2	11	37	83	0.2	7.5	63.5	55.25	7	0.95	0.55	1.675	4.55	5.075	7.65	1.9	4.3	0.55	9.15	1.225	2.35	0.75	5.95	9.45	12.5	25	12.5	25	480	180	12.5	625	0.1	0.5	0.25	1	0.5	1.5	0.5	0.5				
Standard Deviation	50	0.59	44	114	104	1.9	41	252	1585	93	64	11	107	78	66	89	26	66	7.2	192	92	29	272	318	190	45	2245	38	2115	6693	1153	15	9285	0.93	0.51	0.27	4	2.3	6.4	0	0				
Geometric Standard Deviation	3.6	2	2.5	3.4	2.7	4.4	2.9	2.7	16	9.9	12	8.8	13	12	12	11	11	11	8.4	13	14	11	12	15	13	19	5.6	1.8	5.6	7.4	4.2	1.4	5.8	1.8	1.5	1.9	1.7	1.8	1.8	1	0	0			
Number of Guideline Exceedances	2	0	12	8	13	2	3	4	21	30	0	0	0	0	40	0	0	0	0	0	0	0	21	0	0	0	0	2	17	3	17	30	4	0	4	1	0	0	0	1	0	0			
Number of Guideline Exceedances/Detects Only	2	0	12	8	13	2	3	4	21	30	0	0	0	0	40	0	0	0	0	0	0	21	0	0	0	0	2	17	3	17	30	4	0	4	1	0	0	0	1	0	0				
% of Results at or above the Detect Limit	81	16	100	100	100	69	100	100	98	100	98	67	77	85	92	98	90	85	92	67	94	73	85	75	92	94	7	40	5	36	65	58	4	64	5	5	7	5	5	0	0	0			
% of Results below the Detect Limit	19	84	0	0	0	31	0	2	17	33	23	15	8	2	0	10	15	8	33	6	27	15	25	0	0	0	0	63	60	95	64	42	96	36	95	95	93	95	95	100	100	100			
% of Detects at or above Guidelines	6	0	38	25	41	6	9	13	40	58	0	0	0	0	77	0	0	0	0	0	0	0	38	0	0	0	4	31	5	31	55	7	0	7	2	0	0	0	2	0	0				
% of Results Below Guidelines or Non-Detect	94	100	63	75	59	94	91	88	60	42	100	100	100	100	23	100	100	100	100	100	100	100	62	100	100	96	69	95	69	45	93	100	93	98	100	100	100	98	100	100	100	100	100		

Project 73753.01
22/05/2014

Comments

#1 ESDAT Combined with Non-Detect Multiplier of 0.5

#2 ESDAT Combined. Some analytes are reported mu

#3 ESDAT Combined with Non-Detect Multiplier of 0.5

#4 ESDAT Combined. Some Analytes are missing fro

#5 ESDAT Combined with Non-Detect Multiplier of 0.5

#6 ESDAT Combined.

				Metals														PAH																		TRH											
				Arsenic	TCLP Arsenic	Cadmium	TCLP Cadmium	Chromium (III+VI)	TCLP Chromium (III+VI)	Copper	TCLP Copper	Lead	TCLP Lead	Mercury	TCLP Mercury	Nickel	TCLP Nickel	Zinc	TCLP Zinc	PAHs (Sum of total)	TCLP PAHs (Sum of total)	BaP TEQ	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a) pyrene	TCLP Benzo(a) pyrene	Benzo(b)&(k)fluoranthene	Benzo(b,g,h,i)perylene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	TCLP Naphthalene	TCLP Naphthalene	Phenanthrene	Pyrene	C6-C10	<C10-C16	C6-C10 less BTEX (F1)	<C10-C16-NAPHTHALENE	<C16-C34	>C34-C40	C6 - C9
EQL				mg/kg 4	mg/L 0.05	mg/kg 0.4	mg/L 0.01	mg/kg 1	mg/L 0.01	mg/kg 1	mg/L 0.03	mg/kg 0.1	mg/L 0.5	mg/kg 1	mg/L 0.02	mg/kg 1	mg/L 0.02	mg/kg	mg/L	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/L 0.05	mg/L 0.001	mg/kg 0.2	mg/kg 0.1	mg/kg 0.1	mg/kg 0.1	mg/kg 0.1	mg/kg 0.1	mg/kg 0.1	μg/L 1	mg/L 0.001	mg/kg 0.1	mg/kg 0.1	mg/kg 25	mg/kg 50	mg/kg 25	mg/kg 50	mg/kg 100	mg/kg 100	mg/kg 25		
NSW 2008 General Solid Waste (CT1)				100		20		100		100		4		40												0.8																					
NSW 2008 General Solid Waste (SCC1&TCLP1)				500	5	100	1000	1,900	5			1500	5	50	200	1050	2			200						10	0.04																				650
NSW 2008 Restricted Solid Waste (CT2)				400		80		400				16		160												3.2																					
NSW 2008 Restricted Solid Waste (SCC2&TCLP2)				2000	20	400	4000	7,600	20			6000	20	200	800	4200	8			800						23	0.16																				2600

Location	Depth (m bgl)	Date	<4	-	<0.4	-	6	-	3	-	16	-	<0.1	-	2	-	23	-	0.06	-	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	0.06	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.1	<0.1	<25	<50	<25	<50	<25	<50	<100	<100	<25
101	1.9-2	7/04/2014	<4	-	<0.4	-	6	-	3	-	16	-	<0.1	-	2	-	23	-	0.06	-	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	0.06	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.1	<0.1	<25	<50	<25	<50	<25	<50	<100	<100	<25
101	4.8-5	8/04/2014	<4	-	<0.4	-	4	-	2	-	8	-	<0.1	-	1	-	10	-	<1.55	-	<0.5	<0.1	<0.1	<0.1	<0.1	<0.05	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.1	<0.1	<25	<50	<25	<50	<25	<50	<100	<100	<25	
102	0.3-0.5	8/04/2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,200	0.045	110	20	7.2	50	91	76	<0.001	120	22	84	5.1	210	30	31	2 - 8.7	10	0.01	190	210	<25	430	<25	430	7800	1,400	<25			
102	0.8-1	8/04/2014	7	-	<0.4	-	9	-	87	-	200	-	0.3	-	7	-	150	-	52	-	8	0.2	0.5	1	4.8	5.7	-	8.9	1.6	4.5	0.4	8.5	0.3	2.2	<1 - 0.6	-	-	3.5	9	<25	<50	<25	<50	<230	100	<25			
103	0.8-1	8/04/2014	10	-	<0.4	-	16	-	55	-	75	-	0.2	-	7	-	61	-	620	-	69	5	8.2	22	48	49	-	73	18	44	4.8	110	14	22	3 - 6.5	-	-	81	110	<25	120	<25	120	2500	540	<25			
104	0.3-0.5	8/04/2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	160	-	23	1.9	1.7	4	13	17	-	25	5.4	13	1.6	26	2.8	6.6	<1 - 2.5	-	-	17	25	<25	<50	<25	<50	800	250	<25			
104	0.8-1	8/04/2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	290	-	43	1.9	3.6	8.7	25	32	-	46	9.7	24	2.1	42	5.1	12	<1 - 2.9	-	-	31	45	<25	<50	<25	<50	1700	450	<25			
105	0.8-1	8/04/2014	84	-	<0.4	-	7	-	110	-	130	0.06	0.4	-	7	-	140	-	800	0.102	72	9.7	10	32	64	50	<0.001	85	17	56	4.2	150	22	25	4 - 11	21	0.021	120	140	<25	220	<25	220	4100	780	<25			
105	2.8-3	8/04/2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.3	-	<0.5	<0.1	<0.1	<0.1	0.1	0.13	-	0.2	<0.1	0.1	<0.1	0.2	<0.1	<0.1	<0.1	-	-	0.1	0.3	<25	<50	<25	<50	<100	<100	<25			
106	1.8-2	8/04/2014	8	-	<0.4	-	9	-	9	-	180	-	0.1	-	3	-	96	-	12	-	1	<0.1	0.2	0.4	1.1	1.2	-	1.7	0.3	0.9	<0.1	2.2	0.1	0.4	<0.1	-	-	1.2	2.3	<25	<50	<25	<50	<100	<100	<25			
106	2.8-3	8/04/2014	9	-	<0.4	-	14	-	7	-	39	-	0.1	-	3	-	38	-	18	-	2	0.2	0.2	0.5	1.4	1.5	-	2.3	0.5	1.4	0.1	3.3	0.4	0.6	<1 - 0.2	-	-	2.4	3.2	<25	<50	<25	<50	<100	<100	<25			
107	0.5-0.6	9/04/2014	<4	-	<0.4	-	13	-	40	-	15	-	<0.1	-	14	-	47	-	14	-	1	<0.1	0.1	0.6	1.2	1.1	-	1.9	0.4	1.1	<0.1	2.9	<0.1	0.5	<0.1	-	-	1.8	2.6	<25	<50	<25	<50	290	340	<25			
107	0.8-1	9/04/2014	<4	-	<0.4	-	29	-	30	-	35	-	<0.1	-	41	-	49	-	57	-	6	0.4	0.2	2	5.4	4.4	-	7.7	1.2	4.6	0.3	12	0.2	1.6	<0.1	-	-	6.4	11	<25	<50	<25	<50	480	380	<25			
109	0.8-1	9/04/2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.9	-	1	0.2	<0.1	0.4	0.8	0.66	-	1	0.1	0.7	<0.1	1.6	0.2	0.2	<1 - 0.2	-	-	1.1	1.8	<25	<50	<25	<50	<100	<100	<25			
109	1.8-2	9/04/2014	10	-	3	-	19	-	18	-	17	-	<0.1	-	15	-	1400	-	2.9	-	<0.5	<0.1	<0.1	0.1	0.3	0.21	-	0.4	0.1	0.2	<0.1	0.5	<0.1	0.1	<1 - 0.2	-	-	0.3	0.5	<25	<50	<25	<50	<100	<100	<25			
110	1.3-1.5	9/04/2014	5	-	<0.4	-	10	-	12	-	65	-	0.2	-	4	-	26	-	6.1	-	1	<0.1	0.1	0.2	0.6	0.64	-	1	0.2	0.5	<0.1	1	<0.1	0.3	<0.1	-	-	0.5	1.1	<25	<50	<25	<50	<100	<100	<25			
110	2.8-3	9/04/2014	<4	-	<0.4	-	8	-	23	-	60	-	0.2	-	5	-	51	-	0.88	-	<0.5	<0.1	<0.1	<0.1	0.1	0.09	-	<0.2	<0.1	0.1	<0.1	0.2	<0.1	<0.1	<0.1	-	-	0.1	0.2	<25	<50	<25	<50	<100	<100	<25			
111	0.8-1	10/04/2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	400	-	63	2	7.3	7.7	37	46	-	67	16	34	3.6	62	3.2	22	<1 - 3.2	-	-	19	66	<25	76	2500	640	<25					
111	1.3-1.5	10/04/2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	540	-	78	2.4	6.9	14	45	59	-	68	23	38	5	100	6.1	24	<1 - 2.3	-	-	39	110	<25	100	2600	520	<25					
111	1.8-2	10/04/2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	210	-	33	1.5	2.8	4.6	18	23	-	33	11	17	2.7	31	2.1	12	<1 - 2.1	-	-	12	34	<25	<50	<25	820	240	<25				
111	2.8-3	10/04/2014	130	<0.05	0.8	<0.01	3	<0.01	280	0.03	250	1.5	0.3	<0.5	230	0.05	92	3.5	13	<0.014	2	<0.1	0.2	0.2	1.1	1.5	<0.001	2.5	0.8	1.2	0.2	1.7	<0.1	0.8	<1 - 0.3	<1	<0.001	0.8	1.8	<25	<50	<25	<50	<100	<100	<25			
112	0.3-0.5	10/04/2014	5	-	<0.4	-	11	-	34	-	34	-	0.2	-	8	-	40	-	590	0.103	58	7.3	11	23	48	41	<0.001	69	13	44	3.1	110	15	19	1 - 7.2	16	0.016	86	97	<25	140	<25	140	2700	600	<25			
112	1.8-2	10/04/2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40	-	4	1.4	0.6	1.3	3.1	2.8	-	4.6	0.7	2.8	0.2	6.9	1.6	0.9	<1 - 0.7	-	-	5.5	6.8	<25	830	<25	830	960	<100	<25			
112	2.8-3	10/04/2014	9	-	<0.4	-	8	-	43	-	210	-	0.6	-	16	-	180	-	7.3	-	1	<0.1	0.1	0.1	0.7	0.72	-	1.2	0.3	0.7	<0.1	1.2	<0.1	0.3	<1 - 0.2	-	-	0.6	1.2	<25	<50	<25	<50	<100	<100	<25			
113	1.8-2	10/04/2014	30	-	<0.4	-	14	-	21	-	110	-	0.4	-	5	-	62	-	7.9	-	1	0.1	0.3	0.3	0.5	0.75	-	1.3	0.8	0.7	<0.1	0.8	0.1	0.6	<0.1	-	-	0.5	1.2	<25	270	<25	270	1500	220	<25			
113	3.8-4	10/04/2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.9	-	<0.5	<0.1	<0.1	<0.1	0.2	0.19	-	0.3	<0.1	0.2	<0.1	0.3	<0.1	<0.1	<1 - 0.3	-	-	0.1	0.3	<25	<50	<25	<50	<100	<100	<25			
114	0.8-1	10/04/2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.7	-	<0.5	<0.1	<0.1	<0.1	0.2	0.19	-	0.3	<0.1	0.2	<0.1	0.3	<0.1	<0.1	<0.1	-	-	0.2	0.4	<25	<50	<25	<50	<100	<100	<25			
114	1.3-1.5	10/04/2014	10	-	<0.4	-	19	-	32	-	150	-	2.9	-	16	-	120	-	7.5	-	1	<0.1	0.1	0.2	0.6	0.75	-	1.2	0.3	0.6	<0.1	1.1	0.1	0.4	<1 - 0.1	-	-	0.7	1.1	<25	<50	<25	<50	<100	<100	<25			
115	0.8-1	11/04/2014	30	-	<0.4	-	15	-	54	-	190	-	1.2	-	23	-	110	-	440	-	39	6	11	20	25	29	-	36	13	24	2.2	58	20	14	36 - 40	-	-	80	59	<25	69	<25	<50	410	<100	<25			
115	1.8-2	11/04/2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	71	-	7	0.9	1.7	3.1	4.3	5.2	-	7	2.1	4.1	0.6	9.5	3.1	2.5	<1 - 5.4	-	-	11	9.9	<25	<50	<25	<50	240	<100	<25			
115	3.8-4	11/04/2014	7	-	<0.4	-	10	-	7	-	56	-	<0.1	-	5	-	35	-	7.6	-	1	0.3	<0.1	0.3	0.4	0.39	-	0.5	0.2	0.4	<0.1	1	0.5	0.2	<1 - 1	-	-	1.4	1	<25	<50	<25	<50	<100	<100	<25			
117	0.3-0.6	11/04/2014	63	-	0.4	-	220	-	45	-	18	-	0.1	-	80	-	25	-	53	-	6	0.5	0.5	1.3	3.5	4.1	-	6.3	1.7	3.3	0.5	7.1	0.5	2	3 - 11	-	-	2.9	7.5	<25	<50	<25	<50	230	180	<25			
117	1.5-1.9	11/04/2014	6	-	<0.4	-	11	-	75	-	220	-	7	-	8	-	170	-	0.08	-	<0.5	<0.1	<0.1	<0.1	<0.1	0.08	-	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.1	<0.1	<25	<50	<25	<50	<100	<100	<25			
118	0.2-0.5	11/04/2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	650	-	0.0635	87	14	6.6	17	48	62																						

[illegible][illegible][illegible]

Comments

#1 ESDAT Combined with Non-Detect Multiplier of 0.5.

#2 ESDAT Combined. Some analytes are reported multiple times.

#3 ESDAT Combined with Non-Detect Multiplier of 0.5.

#4 ESDAT Combined. Some Analytes are missing from the report.

#5 ESDAT Combined with Non-Detect Multiplier of 0.5.

#6 ESDAT Combined.

						PCB													
						p-isopropyltoluene	sec-butylbenzene	Styrene	tert-butylbenzene	Cyclohexane	MTBE	Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1260	
						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
EQL						1	1	1	1	1	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
NSW 2008 General Solid Waste (CT1)								60											
NSW 2008 General Solid Waste (SCC1&TCLP1)								108							<50				
NSW 2008 Restricted Solid Waste (CT2)								240											
NSW 2008 Restricted Solid Waste (SCC2&TCLP2)								432							<50				

Location	Depth (m bgl)	Date																
101	1.9-2	7/04/2014	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-
101	4.8-5	8/04/2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
102	0.3-0.5	8/04/2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
102	0.8-1	8/04/2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
103	0.8-1	8/04/2014	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-
104	0.3-0.5	8/04/2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
104	0.8-1	8/04/2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
105	0.8-1	8/04/2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
105	2.8-3	8/04/2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
106	1.8-2	9/04/2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
106	2.8-3	9/04/2014	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-
107	0.5-0.6	9/04/2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
107	0.8-1	9/04/2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
109	0.8-1	9/04/2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
109	1.8-2	9/04/2014	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-
110	1.3-1.5	9/04/2014	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-
110	2.8-3	9/04/2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
111	0.8-1	10/04/2014	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-
111	1.3-1.5	10/04/2014	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-
111	1.8-2	10/04/2014	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-
111	2.8-3	10/04/2014	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-
112	0.3-0.5	10/04/2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
112	1.8-2	10/04/2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
112	2.8-3	10/04/2014	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-
113	1.8-2	10/04/2014	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-
113	3.8-4	10/04/2014	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-
114	0.8-1	10/04/2014	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-
114	1.3-1.5	10/04/2014	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-
115	0.8-1	11/04/2014	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-
115	1.8-2	11/04/2014	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-
115	3.8-4	11/04/2014	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-
117	0.3-0.6	11/04/2014	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-
117	1.5-1.9	11/04/2014	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-
118	0.2-0.5	11/04/2014	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-
119	0.3-0.6	11/04/2014	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-
119	1-1.2	11/04/2014	<1	<1	8	<1	<1	<0.5	-	-	-	-	-	-	-	-	-	-
119	1.9-2	11/04/2014	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-
119	2.5-3	11/04/2014	3	<1	<1	<1	<1	<0.5	-	-	-	-	-	-	-	-	-	-
120	0.3-0.5	11/04/2014	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-
120	0.8-1	11/04/2014	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-
121	0.8-1	11/04/2014	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-
121	1.8-2	11/04/2014	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-
122	1.5	11/04/2014	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-
122	2.8-3	11/04/2014	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-
123	0.8-1	11/04/2014	-	-	-	-	-	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
123	1.8-2	11/04/2014	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-
123	2.8-3	11/04/2014	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-
123	3.8-4	11/04/2014	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-
124	0.2-0.5	11/04/2014	1	<1	<1	<1	<1	<0.5	-	-	-	-	-	-	-	-	-	-
124	1.2-1.5	11/04/2014	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-
124	2.2-2.5	11/04/2014	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-
124	3-3.3	11/04/2014	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-
125	0.6-1	11/04/2014	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-
125	0.9-1.1	11/04/2014	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-
125	2.6-3	11/04/2014	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-

Statistical Summary																			
Number of Results		3	3	3	3	3	41	1	1	1	1	1	1	1	1	1	1	1	1
Number of Detects		2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Concentration		<1	<1	<1	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Minimum Detect		1	ND	8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Concentration		3	<1	8	<1	<1	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Maximum Detect		3	ND	8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Average Concentration		1.5	0.5	3	0.5	0.5	0.25												
Geometric Average		1.1	0.5	1.3	0.5	0.5	0.25												
Median Concentration		1	0.5	0.5	0.5	0.5	0.25	0.5	0.5	0.5				0.5	0.5	0.5	0.5	0.5	0.5
Standard Deviation		1.3	0	4.3	0	0	0												
Geometric Standard Deviation		2.5		5															
Number of Guideline Exceedances		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Guideline Exceedances(Detects Only)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% of Results at or above the Detect Limit		67	0	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% of Results below the Detect Limit		33	100	67	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
% of Detects at or above Guidelines		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% of Results Below Guidelines or Non-Detect		100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Comments
#1 ESDAT Combined with Non-Detect Multiplier of 0.5.
#2 ESDAT Combined. Some analytes are reported mult
#3 ESDAT Combined with Non-Detect Multiplier of 0.5.
#4 ESDAT Combined. Some Analytes are missing from
#5 ESDAT Combined with Non-Detect Multiplier of 0.5.
#6 ESDAT Combined.

Table D3 - Laboratory Results of Soil Sampling - Boreholes with Hazardous Waste

			PAH									
PAHs (Sum of total)	TCLP PAHs (Sum of total)	Benzo(a) pyrene	TCLP Benzo(a) pyrene	Naphthalene	TCLP Naphthalene	TCLP Naphthalene	C6 - C9	C10 - C36 (Sum of total)				
									mg/kg	mg/L	mg/kg	mg/kg
EQL			0.05	0.001							25	
NSW 2008 General Solid Waste (CT1)		0.8										
NSW 2008 General Solid Waste (SCC1&TCLP1)		10	0.04								650	10000
NSW 2008 Restricted Solid Waste (CT2)		3.2										
NSW 2008 Restricted Solid Waste (SCC2&TCLP2)		23	0.16								2600	40000

Location	Depth (m bgl)	Date	Comments	PAHs (Sum of total)	TCLP PAHs (Sum of total)	Benzo(a) pyrene	TCLP Benzo(a) pyrene	Naphthalene	TCLP Naphthalene	TCLP Naphthalene	C6 - C9	C10 - C36 (Sum of total)
102	0.3-0.5	8/04/14		1,200	0.045	76	<0.001	2 - 8.7	10	0.01	<25	8710 ^{#5}
102	0.8-1	8/04/14		52	-	5.7	-	<1 - 0.6	-	-	<25	295 ^{#5}
103	0.8-1	8/04/14		620	-	49	-	3 - 6.5	-	-	<25	2825 ^{#5}
104	0.3-0.5	8/04/14		160	-	17	-	<1 - 2.5	-	-	<25	925 ^{#5}
104	0.8-1	8/04/14		290	-	32	-	<1 - 2.9	-	-	<25	1955 ^{#5}
105	0.8-1	8/04/14		800	0.102	50	<0.001	4 - 11	21	0.021	<25	4564 ^{#5}
105	2.8-3	8/04/14		13	-	0.13	-	<0.1	-	-	<25	<250 ^{#6}
111	0.8-1	10/04/14		400	-	46	-	<1 - 3.2	-	-	<25	2825 ^{#5}
111	1.3-1.5	10/04/14		540	-	59	-	<1 - 2.3	-	-	<25	2925 ^{#5}
111	1.8-2	10/04/14		210	-	23	-	<1 - 2.1	-	-	<25	955 ^{#5}
111	2.8-3	10/04/14		13	<0.014	1.6	<0.001	<1 - 0.3	<1	<0.001	<25	<250 ^{#6}
112	0.3-0.5	10/04/14		590	0.103	41	<0.001	1 - 7.2	16	0.016	<25	3025 ^{#5}
112	1.8-2	10/04/14	Petroleum Odour	40	-	2.8	-	<1 - 0.7	-	-	<25	1860 ^{#5}
112	2.8-3	10/04/14		73	-	0.72	-	<1 - 0.2	-	-	<25	<250 ^{#6}
115	0.8-1	11/04/14	Tar Odour	440	-	29	-	36 - 40	-	-	<25	495 ^{#5}
115	1.8-2	11/04/14		71	-	5.2	-	<1 - 5.4	-	-	<25	315 ^{#5}
115	3.8-4	11/04/14		76	-	0.39	-	<1 - 1	-	-	<25	<250 ^{#6}
118	0.2-0.5	11/04/14	Petroleum Odour	650	0.0635	62	<0.001	16 - 54	27	0.027	<25	5610 ^{#5}
119	0.3-0.6	11/04/14		650	-	83	-	2 - 9.1	-	-	<25	8360 ^{#5}
119	1-1.2	11/04/14	Petroleum Odour	-	-	-	-	<1	-	-	110	50 900 ^{#5}
119	1.9-2	11/04/14	Petroleum Odour	2400	3.329	150	<0.001	230 - 410	2,900	2.9	<25	12 800 ^{#5}
119	2.5-3	11/04/14		300	-	6.9	-	14 - 26	-	-	63	8410 ^{#5}
121	0.8-1	11/04/14		52 - 55	-	4.2 - 5.7	-	<1 - 2	-	-	<25	175 - 3080 ^{#5}
121	1.8-2	11/04/14		280	-	32	-	<1 - 0.8	-	-	<25	1685 ^{#5}
122	1.5	11/04/14		330	-	29	-	1 - 4.6	-	-	<25	1455 ^{#5}
122	2.8-3	11/04/14		14	0.023	1.4	<0.001	<1 - 0.1	13	0.013	<25	<250 ^{#6}
123	0.8-1	11/04/14	Tar Odour, Ash	930	-	83	-	3 - 3.3	-	-	<25	5490 ^{#5}
123	1.8-2	11/04/14		13	-	1.1	-	<1 - 0.1	-	-	<25	<250 ^{#6}
123	2.8-3	11/04/14		2,900	0.0125	130	<0.001	12 - 120	4	0.004	<25	16 940 ^{#5}
123	3.8-4	11/04/14		0.27	-	0.06	-	<0.1	-	-	<25	<250 ^{#6}
124	0.2-0.5	11/04/14	Petroleum Odour	11,000	5.693	430	<0.001	1,600 - 2,400	5,200	5.2	<25	44 700 ^{#5}
124	1.2-1.5	11/04/14	Petroleum Odour	1,200	-	94	-	50 - 64	-	-	<25	5150 ^{#5}
124	2.2-2.5	11/04/14	Petroleum Odour	510	-	40	-	23 - 25	-	-	<25	2303 ^{#5}
124	3-3.3	11/04/14	Petroleum Odour	170	-	14	-	4 - 4.7	-	-	<25	625 ^{#5}

Bold Indicates sample classifying as Hazardous Waste

	Metals										PAH														TRH						BTEX								
	Arsenic (Filtered)	Cadmium (Filtered)	Calcium (Filtered)	Chromium (II+VI) (Filtered)	Copper (Filtered)	Lead (Filtered)	Magnesium (Filtered)	Mercury (Filtered)	Nickel (Filtered)	Zinc (Filtered)	PAHs (Sum of total)	Carcinogenic PAHs as B(a)P TPE	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a) pyrene	Benzo(b)&(k)fluoranthene	Benzo(g,h,i)perylene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	C6-C10	>C10-C16	C6-C10 less BTEX (F1)	>C10-C16-NAPHTHALENE	>C16-C34	>C34-C40	Benzene	Ethylbenzene	Toluene	Xylene (m & p)	Xylene (o)	Xylene Total
	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
EQL	1	0.1	0.5	1	1	1	0.5	0.05	1	1			0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.05	0.01	0.05	0.1	0.1	1	1	1	2	1	600
NEPM 2013 GILs Drinking Water	10	2			2000	10		1	20								0.01																1	300	800				
NEPM 2013 GILs, Marine Waters		0.7			1.3	4.4		0.1	7	15															50								500						
ANZECC 2000 LOW RELIABILITY MW	4.5														0.01		0.1					1				0.6									5	180	275	350	
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Comments

- #1 ESDAT Combined with Non-Detect Multiplier of 0.5. Some analytes are reported multiple times; the lowest non-detect
- #2 ESDAT Combined. Some analytes are reported multiple times; the lowest non-detect or the highest detect is used.
- #3 ESDAT Combined with Non-Detect Multiplier of 0.5.
- #4 ESDAT Combined.

Comments

#1 ESDAT Combined with Non-Detect

#2 ESDAT Combined. Some analytes

#3 ESDAT Combined with Non-Detect

#4 ESDAT Combined.

					BTEx					Chlorinated Hydrocarbons																Halogenated Benzenes												
					1,2-Dichlorotetrafluoroethane	Freon 113	2-Propanol	Propene	Benzene	Toluene	Xylene (m & p)	Xylene (o)	Xylene (total)	1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethane	1,1-dichloroethene	1,2-dichloropropane	Bromodichloromethane	Bromoform	Carbon tetrachloride	Chlorodibromomethane	Chloroethane	Chloroform	Chloromethane	cis-1,2-dichloroethene	Hexachlorobutadiene	Trichloroethene	Tetrachloroethene	trans-1,2-dichloroethene	Vinyl chloride	1,2,4-trichlorobenzene	1,2-dichlorobenzene	1,3-dichlorobenzene	Chlorobenzene		
					mg/m3	µg/m3	µg/m3	µg/m3	mg/m3	mg/m3	µg/m3	µg/m3	µg/m3	mg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	mg/m3	µg/m3	mg/m3	µg/m3	mg/m3	µg/m3	µg/m3	µg/m3	µg/m3			
EQL					0.0025	3.8	1.2	0.9	0.0016	0.0019	4.3	2.2	6.5	0.0027	3.4	2.7	2	2	2.3	3.4	5.2	3.1	1.6	1.3	2.4	1	0.002	5.3	0.0027	0.0034	2	0.0013	3.7	3	3	2.3		
Interim Soil Vapour H.L for Volatile Chlorinated Compounds (HIL A, NEPM 2013)													60													0.08	0.02	2		0.03								
Soil Vapour HSL for Vapour Intrusion, Sand, 1 m to < 2 m (HSL A, NEPM 2013)									3	3800			750,000																									
OSWER Shallow Soil VISLs						300000	70000	30000	0.031	4		70000		22	0.42	6	5000	2000	40	14	220	16	10	100000	11	240	0.35	1.1	0.00022	0.0081	700	0.0028	2000	2000	1100	600		
LocCode	Sample_Depth	Sampled_Date-Time		Lab_Report_Number																																		
102	1.5	15/04/2014		108276		<0.0025	<3.8	<1.2	<0.9	<0.0016	0.0095	<4.3	<2.2	<6.5	<0.0027	<3.4	<2.7	<2	<2	<2.3	<3.4	<5.2	<3.1	<1.6	<1.3	<2.4	<1	<0.002	<5.3	<0.0027	<0.0034	<2	<0.0013	<3.7	<3	<3	<2.3	
103	1.5	15/04/2014		108276		<0.0025	<3.8	<1.2	<0.9	<0.0016	0.021	<4.3	<2.2	<6.5	<0.0027	<3.4	<2.7	9.5	<2	<2.3	<3.4	<5.2	<3.1	<1.6	<1.3	<2.4	<1	<0.002	<5.3	<0.0027	<0.0034	<2	<0.0013	<3.7	<3	<3	<2.3	
104	1.5	15/04/2014		108276		<0.0025	<3.8	<1.2	<0.9	0.0024	0.094	11	6.6	17.6	<0.0027	<3.4	<2.7	<2	<2	<2.3	<3.4	<5.2	<3.1	<1.6	<1.3	10	<1	<0.002	<5.3	<0.0027	<0.0034	<2	<0.0013	<3.7	<3	<3	<2.3	
BD1 150414	1.5	15/04/2014		108276		<0.0025	<3.8	<1.2	<0.9	0.002	0.097	12	7.6	19.6	<0.0027	<3.4	<2.7	<2	<2	<2.3	<3.4	<5.2	<3.1	<1.6	<1.3	6.5	<1	<0.002	<5.3	<0.0027	<0.0034	<2	<0.0013	<3.7	<3	<3	<2.3	
114	1.5	15/04/2014		108276		<0.0025	<3.8	<1.2	<0.9	0.0029	0.0043	5.1	3.3	8.4	<0.0027	<3.4	<2.7	<2	<2	<2.3	<3.4	<5.2	<3.1	<1.6	<1.3	140	<1	<0.002	<5.3	0.019	<0.0034	<2	<0.0013	<3.7	<3	<3	<2.3	
117	1.5	15/04/2014		108276		<0.0025	<3.8	<1.2	<0.9	0.0043	0.017	9.4	4.3	13.7	<0.0027	<3.4	<2.7	<2	<2	<2.3	<3.4	<5.2	<3.1	<1.6	<1.3	<2.4	<1	<0.002	<5.3	<0.0027	<0.0034	<2	<0.0013	<3.7	<3	<3	<2.3	
118A	1.5	9/05/2014		109490		<0.0025	<3.8	<1.2	<0.9	<0.0016	<1.9	<4.3	<2.2	<6.5	<0.0027	<3.4	<2.7	<2	<2	<2.3	<3.4	<5.2	<3.1	<1.6	<1.3	<2.4	<1	<0.002	<5.3	<0.0027	<0.0034	<2	<0.0013	<3.7	<3	<3	<2.3	
Statistical Summary																																						
Number of Results					7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7			
Number of Detects					0	0	0	0	4	6	4	4	4	0	0	0	1	0	0	0	0	0	0	0	0	3	0	0	0	1	0	0	0	0	0	0		
Minimum Concentration					<0.0025	<3.8	<1.2	<0.9	<0.0016	0.0043	<4.3	<2.2	<6.5	<0.0027	<3.4	<2.7	<2	<2	<2.3	<3.4	<5.2	<3.1	<1.6	<1.3	<2.4	<1	<0.002	<5.3	<0.0027	<0.0034	<2	<0.0013	<3.7	<3	<3	<2.3		
Minimum Detect					ND	ND	ND	ND	0.002	0.0043	5.1	3.3	8.4	ND	ND	ND	9.5	ND	ND	ND	ND	ND	ND	ND	ND	6.5	ND	ND	ND	0.019	ND	ND	ND	ND	ND	ND	ND	
Maximum Concentration					<0.0025	<3.8	<1.2	<0.9	0.0043	<1.9	12	7.6	19.6	<0.0027	<3.4	<2.7	9.5	<2	<2.3	<3.4	<5.2	<3.1	<1.6	<1.3	140	<1	<0.002	<5.3	0.019	<0.0034	<2	<0.0013	<3.7	<3	<3	<2.3		
Maximum Detect					ND	ND	ND	ND	0.0043	0.097	12	7.6	19.6	ND	ND	ND	9.5	ND	ND	ND	ND	ND	ND	ND	ND	140	ND	ND	ND	0.019	ND	ND	ND	ND	ND	ND	ND	
Average Concentration					0.0013	1.9	0.6	0.45	0.002	0.17	6.3	3.6	9.9	0.0014	1.7	1.4	2.2	1	1.2	1.7	2.6	1.6	0.8	0.65	23	0.5	0.001	2.7	0.0039	0.0017	1	0.00065	1.9	1.5	1.5	1.2		
Geometric Average					0.0013	1.9	0.6	0.45	0.0016	0.039	4.8	2.7	7.5	0.0014	1.7	1.4	1.4	1	1.2	1.7	2.6	1.6	0.8	0.65	4.1	0.5	0.001	2.7	0.002	0.0017	1	0.00065	1.9	1.5	1.5	1.2		
Median Concentration					0.00125	1.9	0.6	0.45	0.002	0.021	5.1	3.3	8.4	0.00135	1.7	1.35	1	1	1.15	1.7	2.6	1.55	0.8	0.65	1.2	0.5	0.001	2.65	0.00135	0.0017	1	0.00065	1.85	1.5	1.5	1.15		
Standard Deviation					0	0	0	0	0.0013	0.35	4.4	2.7	7.1	0	0	0	3.2	0	0	0	0	0	0	0	52	0	0	0	0.0067	0	0	0	0	0	0	0		
Geometric Standard Deviation									2	6.1	2.2	2.4	2.3				2.3								6.1				2.7									
Number of Guideline Exceedances					0	0	0	0	4	7	4	4	4	0	7	0	1	0	0	0	0	0	0	0	0	3	0	0	7	7	0	0	0	0	0	0		
Number of Guideline Exceedances(Detects Only)					0	0	0	0	4	6	4	4	4	0	0	0	1	0	0	0	0	0	0	0	0	3	0	0	1	0	0	0	0	0	0	0		
% of Results at or above the Detect Limit					0	0	0	0	57	86	57	57	57	0	0	0	14	0	0	0	0	0	0	0	0	43	0	0	0	14	0	0	0	0	0	0	0	
% of Results below the Detect Limit					100	100	100	100	43	14	43	43	43	100	100	100	86	100	100	100	100	100	100	100	100	57	100	100	100	86	100	100	100	100	100	100	100	
% of Detects at or above Guidelines					0	0	0	0	57	86	57	57	57	0	0	0	14	0	0	0	0	0	0	0	0	43	0	0	0	14	0	0	0	0	0	0	0	
% of Results Below Guidelines or Non-Detect					100	100	100	100	43	14	43	43	43	100	100	100	86	100	100	100	100	100	100	100	100	57	100	100	100	86	100	100	100	100	100	100	100	
Notes:																																						
ND																																						
Not detected at laboratory detection limits																																						
Where the laboratory PQL is greater than the screening level it has not been recorded as an exceedance																																						
Where the concentration is within the Australian (NEPM 2013) guideline but exceeds the OSWER screening level the result has not been recorded as an exceedance																																						

				Halogenated Hydrocarbons			MAH		Organic	Other				PAH/Phenols	Solvents														VOCs						
				Bromomethane	Dichlorodifluoromethane	Trichlorofluoromethane	1,2,4-trimethylbenzene	1,3,5-trimethylbenzene	1-methyl-4 ethyl benzene	Methane	Helium	Carbon Monoxide	Hydrogen	Oxygen	Naphthalene	1,4-Dioxane	Methyl Ethyl Ketone	2-hexanone (MBK)	4-Methyl-2-pentanone	Carbon disulfide	Cyclohexane	Ethanol	Ethyl acetate	Heptane	Hexane	MTBE	Tetrahydrofuran	Vinyl acetate	Methyl Methacrylate						
				µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	%	%	%	%	%	mg/m3	µg/m3	µg/m3	µg/m3	µg/m3	µg/m3	mg/m3	µg/m3	µg/m3	µg/m3	µg/m3	mg/m3	µg/m3	µg/m3	µg/m3						
EQL				19	2.5	2.8	2.5	2.5	2.5	0.01	0.01	0.01	0.01	0.01	0.0026	1.8	1.5	2	2	1.6	0.0017	0.9	1.8	2	1.8	0.0018	1.5	1.8	2						
Interim Soil Vapour HIL for Volatile Chlorinated Compounds (HIL A, NEPM 2013)																																			
Soil Vapour HSL for Vapour Intrusion, Sand, 1 m to < 2 m (HSL A, NEPM 2013)															3																				
OSWER Shallow Soil VISLs				50	2000	7000	60	60						0.03		10000		800	7000	60	150000	32000		2000	30		2000								
LocCode	Sample Depth	Sampled Date-Time	Lab Report Number																																
102	1.5	15/04/2014	108276	<1.9	<2.5	<2.8	<2.5	<2.5	<2.5	<0.01	<0.01	<0.01	<0.01	12	<0.0026	<1.8	<1.5	<2	<2	<1.6	<0.0017	<0.9	<1.8	4.8	<1.8	<0.0018	<1.5	<1.8	<2						
103	1.5	15/04/2014	108276	<1.9	<2.5	<2.8	2.7	<2.5	<2.5	<0.01	<0.01	<0.01	<0.01	5.5	0.023	<1.8	<1.5	<2	<2	<1.6	<0.0017	<0.9	<1.8	9	3.1	<0.0018	<1.5	<1.8	<2						
104	1.5	15/04/2014	108276	<1.9	<2.5	<2.8	14	27	3	<0.01	<0.01	<0.01	<0.01	4.2	0.057	<1.8	<1.5	<2	<2	9.5	<0.0017	<0.9	<1.8	3.9	6	<0.0018	<1.5	<1.8	<2						
BD1 150414	1.5	15/04/2014	108276	<1.9	<2.5	<2.8	15	28	3.7	<0.01	<0.01	<0.01	<0.01	4.4	0.071	<1.8	<1.5	<2	<2	7	<0.0017	<0.9	<1.8	7.8	4.4	<0.018	<1.5	<1.8	<2						
114	1.5	15/04/2014	108276	<1.9	<2.5	<2.8	4	3.5	<2.5	1.4	<0.01	<0.01	<0.01	1.5	0.016	<1.8	<1.5	<2	<2	21	<0.0017	<0.9	<1.8	130	100	<0.0018	<1.5	<1.8	<2						
117	1.5	15/04/2014	108276	<1.9	<2.5	<2.8	4.1	<2.5	<2.5	<0.01	<0.01	<0.01	0.01	1.8	0.037	<1.8	<1.5	<2	<2	<1.6	<0.0017	<0.9	<1.8	720	520	<0.0018	<1.5	<1.8	<2						
118A	1.5	9/05/2014	109490	<1.9	<2.5	<2.8	<2.5	<2.5	<2.5	-	-	-	-	10	<2.6	<1.8	<1.5	<2	<2	<1.6	<0.0017	<0.9	<1.8	<1.7	<1.8	<0.0018	<1.5	<1.8	<2						
Statistical Summary																																			
Number of Results				7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7						
Number of Detects				0	0	0	5	3	2	2	1	1	2	7	5	0	0	0	0	3	0	0	0	6	5	0	0	0	0						
Minimum Concentration				<1.9	<2.5	<2.8	<2.5	<2.5	<2.5	<0.01	<0.01	<0.01	<0.01	1.5	<0.0026	<1.8	<1.5	<2	<2	<1.6	<0.0017	<0.9	<1.8	<1.7	<1.8	<0.0018	<1.5	<1.8	<2						
Minimum Detect				ND	ND	ND	2.7	3.5	3	1.4	ND	ND	0.01	1.5	0.016	ND	ND	ND	ND	7	ND	ND	ND	3.9	3.1	ND	ND	ND	ND						
Maximum Concentration				<1.9	<2.5	<2.8	15	28	3.7	1.4	<0.01	<0.01	0.01	12	<2.6	<1.8	<1.5	<2	<2	21	<0.0017	<0.9	<1.8	720	520	<0.018	<1.5	<1.8	<2						
Maximum Detect				ND	ND	ND	15	28	3.7	1.4	ND	ND	0.01	12	0.071	ND	ND	ND	ND	21	ND	ND	ND	720	520	ND	ND	ND	ND						
Average Concentration				0.95	1.3	1.4	6	9.1	1.9	0.24	0.005	0.005	0.0058	5.6	0.22	0.9	0.75	1	1	5.8	0.00085	0.45	0.9	125	91	0.0021	0.75	0.9	1						
Geometric Average				0.95	1.3	1.4	3.9	3.5	1.7	0.013	0.005	0.005	0.0056	4.4	0.037	0.9	0.75	1	1	2.5	0.00085	0.45	0.9	14	8.6	0.0013	0.75	0.9	1						
Median Concentration				0.95	1.25	1.4	4	1.25	1.25	0.005	0.005	0.005	0.005	4.4	0.037	0.9	0.75	1	1	0.8	0.00085	0.45	0.9	7.8	4.4	0.0009	0.75	0.9	1						
Standard Deviation				0	0	0	5.9	13	1	0.57	0	0	0.002	4	0.48	0	0	0	0	7.6	0	0	0	266	193	0.0031	0	0	0						
Geometric Standard Deviation							2.8	4.3	1.6	10				2.2	7.8					4.3				9.9	11	2.4									
Number of Guideline Exceedances				0	0	0	5	3	2	1	0	0	1	7	6	0	0	0	0	3	0	0	0	6	5	1	0	0	0						
Number of Guideline Exceedances(Detects Only)				0	0	0	5	3	2	1	0	0	1	7	5	0	0	0	0	3	0	0	0	6	5	0	0	0	0						
% of Results at or above the Detect Limit				0	0	0	71	43	29	29	14	14	29	100	71	0	0	0	0	43	0	0	0	86	71	0	0	0	0						
% of Results below the Detect Limit				100	100	100	29	57	71	71	86	86	71	0	29	100	100	100	100	57	100	100	100	14	29	100	100	100	100						
% of Detects at or above Guidelines				0	0	0	71	43	29	14	0	0	14	100	71	0	0	0	0	43	0	0	0	86	71	0	0	0	0						
% of Results Below Guidelines or Non-Detect				100	100	100	29	57	71	86	100	100	86	0	29	100	100	100	100	57	100	100	100	14	29	100	100	100	100						
Notes:																																			
ND				Not detected at laboratory detection limits																															
				Where the laboratory PQL is greater than the screening level it has not been recd																															
				Where the concentration is within the Australian (NEPM 2013) guideline but excd																															