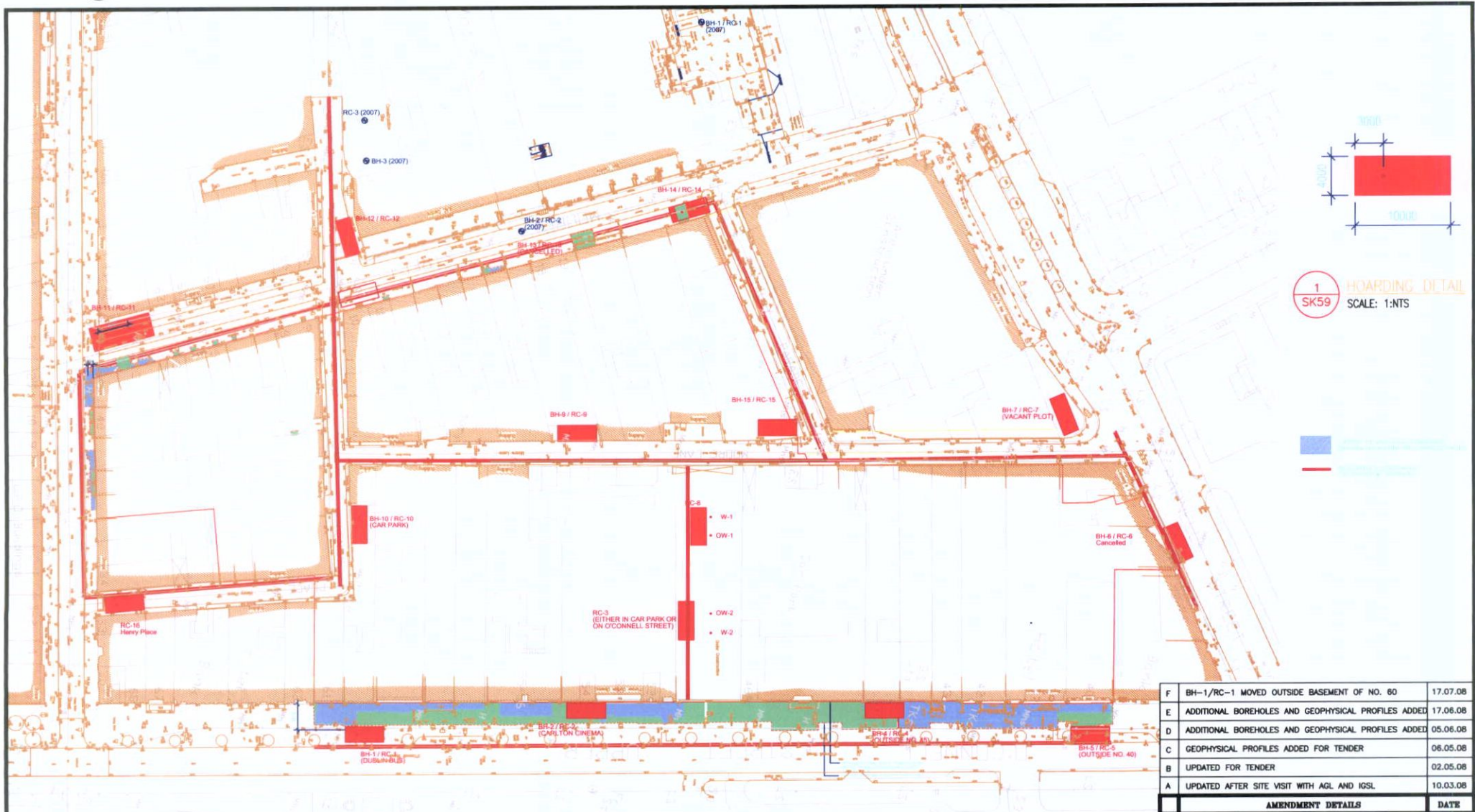


DCC PLAN NO 2862/21
RECEIVED: 01/06/2021

APPENDIX 1

Site Map



F	BH-1/RC-1 MOVED OUTSIDE BASEMENT OF NO. 60	17.07.08
E	ADDITIONAL BOREHOLES AND GEOPHYSICAL PROFILES ADDED	17.06.08
D	ADDITIONAL BOREHOLES AND GEOPHYSICAL PROFILES ADDED	05.06.08
C	GEOPHYSICAL PROFILES ADDED FOR TENDER	06.05.08
B	UPDATED FOR TENDER	02.05.08
A	UPDATED AFTER SITE VISIT WITH AGL AND IGSL	10.03.08
AMENDMENT DETAILS		DATE

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T.J.O'CONNOR & ASSOCIATES
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 CORRIG HOUSE, CORRIG ROAD, SANDYFORD, DUBLIN 18.
 Tel: 295 2321 Fax: 295 4541

PROJECT: DUBLIN CENTRAL PROJECT

CLIENT: CHARTERED LAND

DRAWING TITLE: BOREHOLE LOCATIONS

SCALE: 1:500 JOB NO: 2643 DRAWING NO: SK59 F

DATE: 17.07.08 DRAWN BY: DD

APPENDIX 2

Borehole Logs



GEOTECHNICAL BORING RECORD

REPORT NUMBER

13696

CONTRACT Dublin Central Development - Draft

BOREHOLE NO. BH7
SHEET Sheet 1 of 2

CO-ORDINATES

RIG TYPE Dando 150

GROUND LEVEL (m AOD)

BOREHOLE DIAMETER (mm) 200

DATE STARTED 05/08/2008
DATE COMPLETED 12/08/2008

CLIENT Dublin Central Developments Ltd
ENGINEER AGL Consulting Ltd

BOREHOLE DEPTH (m) 16.00
CASING DEPTH (m) 16.00

BORED BY J. O'Hara
PROCESSED BY S. Letch

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Standpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
0	MADE GROUND consisting of concrete.									
0.30	MADE GROUND consisting of brown grey sandy slightly gravely clay with some cobbles and red brick.			0.30						
1.50					AF4959	B	1.50-1.50	N = 7 (1, 1, 1, 2, 2, 2)		
2.70					AF4960	B	2.70-2.70	N = 57 (5, 7, 15, 13, 11, 18)		
3.60					AF4961	B	3.60-3.60	N = 63 (6, 5, 9, 13, 17, 24)		
4.20	Dense grey slightly clayey/silty sandy GRAVEL with many cobbles. Gravel is fine to coarse and subrounded to subangular of limestone.			4.20				N = 100/225 mm (9, 20, 33, 38, 29)		
4.50					AF4962	B	4.50-4.50	N = 26 (7, 7, 6, 7, 6, 7)		
5.50					AF4963	B	5.50-5.50	N = 31 (2, 4, 6, 8, 8, 9)		
6.30					AF4964	B	6.30-6.30	N = 13 (5, 3, 3, 3, 3, 4)		
7.30					AF4965	B	7.30-7.30	N = 21 (1, 1, 3, 5, 5, 8)		
8.30					AF4966	B	8.30-8.30			

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (h)	Comments
4	4.2	0.5	Boulder
5.6	9	8	Hard Strata Boring
9	12.6	8	Hard Strata Boring
12.5	13.5	4	Hard Strata Boring
13.5	16	7	Hard Strata Boring
16	16	2	Boulder

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
5.00	5.00	No	5.00	20	Moderate

GROUNDWATER DETAILS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
01-08-08	2.00	2.00	-	End of shift
05-08-08	2.00	2.00	-	Start of shift
05-08-08	5.60	6.00	5.10	End of shift
06-08-08	5.00	6.00	4.80	Start of shift
06-08-08	8.60	9.00	5.40	End of shift
07-08-08	8.60	9.00	5.00	Start of shift

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
12-08-08	15.00	13.00	15.00	50mm SP

REMARKS Hand dug inspection pit excavated to 1.20m. Blowing gravels from 5.6m bgl to base of hole. Falling and rising head test completed.

BH LOG DCD 13696.GPJ IGSL.GDT 1/10/08



GEOTECHNICAL BORING RECORD

REPORT NUMBER

13696

CONTRACT Dublin Central Development - Draft

BOREHOLE NO. BH7
SHEET Sheet 2 of 2

CO-ORDINATES

RIG TYPE Dando 150

GROUND LEVEL (m AOD)

BOREHOLE DIAMETER (mm) 200

DATE STARTED 05/08/2008

DATE COMPLETED 12/08/2008

CLIENT Dublin Central Developments Ltd

BOREHOLE DEPTH (m) 16.00

BORED BY J. O'Hara

ENGINEER AGL Consulting Ltd

CASING DEPTH (m) 16.00

PROCESSED BY S. Letch

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Standpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
10	Dense grey slightly clayey/silty sandy GRAVEL with many cobbles and lenses of brown slightly sandy gravelly clay. Gravel is fine to coarse and subrounded to subangular of limestone. Very dense grey slightly sandy GRAVEL with some cobbles. Gravel is fine to coarse and subrounded to subangular of limestone.			10.00	AF4967	B	10.20-10.20		N = 25 (8, 7, 7, 6, 6, 6)	
				10.40	AF4968	B	11.00-11.00		N = 100 (12, 15, 16, 21, 25, 38)	
11					AF4969	B	12.00-12.00		N = 100/225 mm (11, 20, 26, 33, 41)	
12					AF4970	B	13.00-13.00		N = 100/90 mm (25, 44, 56)	
13					AF4971	B	14.00-14.00		N = 100/185 mm (8, 11, 33, 48, 19)	
14					AF4972	B	15.00-15.00		N = 100/150 mm (17, 27, 39, 61)	
15	Hard brown slightly sandy gravelly CLAY with some cobbles. Obstruction - possible boulder End of Borehole at 16.00 m			15.80	AF4973	B	15.90-15.90		N = 100/90 mm (25, 40, 60)	
16				16.00	AF4974	B	16.00-16.00		N = 100/90 mm (25, 40, 60)	
17										
18										
19										

HARD STRATA BORING/CHISELLING

WATER STRIKE DETAILS

From (m)	To (m)	Time (h)	Comments
4	4.2	0.5	Boulder
5.6	9	8	Hard Strata Boring
9	12.6	8	Hard Strata Boring
12.5	13.5	4	Hard Strata Boring
13.5	16	7	Hard Strata Boring
16	16	2	Boulder

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

GROUNDWATER DETAILS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
07-08-08	12.50	12.50	7.70	End of shift
08-08-08	12.50	12.50	6.40	Start of shift
08-08-08	13.50	13.50	2.70	End of shift
11-08-08	13.50	13.50	6.20	Start of shift
11-08-08	16.00	16.00	4.80	End of shift
12-08-08	16.00	16.00	5.20	Start of shift
12-08-08	16.00	16.00	8.80	End of shift

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
12-08-08	15.00	13.00	15.00	50mm SP

REMARKS Hand dug inspection pit excavated to 1.20m. Blowing gravels from 5.6m bgl to base of hole. Falling and rising head test completed.

BH LOG DCD 13696.GPJ IGSL.GDT 1/10/08



GEOTECHNICAL BORING RECORD

REPORT NUMBER

13696

CONTRACT Dublin Central Development - Draft

BOREHOLE NO. **BH9**
SHEET Sheet 1 of 2

CO-ORDINATES

RIG TYPE Dando 150

GROUND LEVEL (m AOD)

BOREHOLE DIAMETER (mm) 200

DATE STARTED 15/07/2008

DATE COMPLETED 23/07/2008

CLIENT Dublin Central Developments Ltd
ENGINEER AGL Consulting Ltd

BOREHOLE DEPTH (m) 17.50

BORED BY J. McDonnell

CASING DEPTH (m) 17.50

PROCESSED BY S. Letch

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Standpipe Details	
					Ref. Number	Sample Type	Depth (m)	Recovery			
0	MADE GROUND consisting of reinforced concrete.			0.20							
	MADE GROUND consisting of brown grey sandy slightly gravelly clay with some cobbles and red brick.				AF1908	B	1.00-1.00		N = 7 (2, 2, 2, 1, 1, 3)		
2	Very dense grey brown slightly clayey/silty sandy GRAVEL with many cobbles. Gravel is fine to coarse and subrounded to subangular of limestone.			2.00	AF1909	B	2.10-2.10		N = 36 (4, 6, 7, 2, 10, 17)		
						AF1910	B	2.50-2.50			
						AF1911	B	3.00-3.00		N = 39 (7, 9, 8, 10, 10, 11)	
						AF1912	B	4.00-4.00		N = 28 (2, 3, 6, 7, 8, 7)	
						AF1913	B	5.00-5.00		N = 34 (3, 4, 7, 7, 9, 11)	
						AF1914	B	6.00-6.00		N = 27 (3, 3, 4, 8, 8, 7)	
				AF1915	B	7.00-7.00		N = 77 (7, 18, 20, 25, 20, 12)			
				AF1916	B	8.00-8.00		N = 69 (6, 12, 16, 20, 20, 13)			
				AF1917	B	9.00-9.00		N = 18 (6, 6, 5, 5, 5, 3)			

HARD STRATA BORING/CHISELLING

WATER STRIKE DETAILS

From (m)	To (m)	Time (h)	Comments
16.2	16.5	1	Boulder
17	17.5	2	Boulder

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
5.50	5.50	No	3.10	5	Rapid

GROUNDWATER DETAILS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
15-07-08	2.00	2.00	-	End of shift
16-07-08	2.00	2.00	-	Start of shift
16-07-08	7.00	7.00	4.50	End of shift
17-07-08	7.00	7.00	4.50	Start of shift

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
22-07-08	13.50	12.00	13.50	50mm SP

REMARKS Hand dug inspection pit excavated to 1.20m. Falling and rising head tests completed. Standing from 24th to 28th July - No access

BH LOG DCD 13696.GPJ IGSL.GDT 11/10/08



GEOTECHNICAL BORING RECORD

REPORT NUMBER

13696

CONTRACT Dublin Central Development - Draft

BOREHOLE NO. **BH9**
SHEET Sheet 2 of 2

CO-ORDINATES

RIG TYPE Dando 150

GROUND LEVEL (m AOD)

BOREHOLE DIAMETER (mm) 200

DATE STARTED 15/07/2008
DATE COMPLETED 23/07/2008

CLIENT Dublin Central Developments Ltd
ENGINEER AGL Consulting Ltd

BOREHOLE DEPTH (m) 17.50
CASING DEPTH (m) 17.50

BORED BY J. McDonnell
PROCESSED BY S. Letch

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Standpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
10	Very dense grey brown slightly clayey/silty sandy GRAVEL with many cobbles. Gravel is fine to coarse and subrounded to subangular of limestone. <i>(continued)</i> No CPT as gravel blowing up casing				AF1918	B	10.00-10.00		N = 41 (11, 13, 11, 10, 10, 10)	
11					AF1919	B	11.00-11.00			
12					AF1920	B	12.00-12.00			
13					AF1921	B	13.00-13.00			
14	Hard dark brown slightly sandy gravelly CLAY with occasional cobbles.			13.50	AF1922	B	14.00-14.00		N = 68 (6, 11, 15, 17, 19, 17)	
14	Very dense grey brown slightly sandy GRAVEL with some cobbles. Gravel is medium to coarse and subrounded to subangular of limestone.			14.20	AF1923	B	14.40-14.40			
15				14.50	Failed	U	14.50-14.50	0% rec 100 blows		
15	Hard dark brown slightly sandy gravelly CLAY with occasional cobbles.				AF1924	B	15.00-15.00		N = 45/150 mm (20, 35, 20, 25)	
16	Very dense grey brown slightly sandy GRAVEL with some cobbles. Gravel is medium to coarse and subrounded to subangular of limestone.			15.90	AF1925	B	16.00-16.00			
16				16.50						
17	Hard black slightly sandy gravelly CLAY with occasional cobbles.				AF1828	B	16.80-16.80		N = 100 (8, 12, 20, 30, 30, 20)	
17	Obstruction - possible boulder			17.00	AF1829	B	17.10-17.10			
17.50	End of Borehole at 17.50 m			17.50						

HARD STRATA BORING/CHISELLING

WATER STRIKE DETAILS

From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
16.2	16.5	1	Boulder						
17	17.5	2	Boulder						

GROUNDWATER DETAILS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
17-07-08	13.00	13.00	5.00	End of shift
18-07-08	13.00	13.00	4.60	Start of shift
18-07-08	16.50	16.50	5.80	End of shift
21-07-08	16.50	16.50	4.65	Start of shift

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
22-07-08	13.50	12.00	13.50	50mm SP

REMARKS Hand dug inspection pit excavated to 1.20m. Falling and rising head tests completed. Standing from 24th to 28th July - No access

BH LOG DCD 13696.GPJ IGSL.GDT 1/10/08



GEOTECHNICAL BORING RECORD

REPORT NUMBER

13696

CONTRACT Dublin Central Development - Draft

BOREHOLE NO. BH10
SHEET Sheet 1 of 2

CO-ORDINATES

RIG TYPE Dando 150

GROUND LEVEL (m AOD)

BOREHOLE DIAMETER (mm) 200

DATE STARTED 30/07/2008
DATE COMPLETED 13/08/2008

CLIENT Dublin Central Developments Ltd
ENGINEER AGL Consulting Ltd

BOREHOLE DEPTH (m) 15.45
CASING DEPTH (m) 15.45

BORED BY J. McDonnell
PROCESSED BY S. Letch

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Standpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
0	MADE GROUND consisting of concrete. MADE GROUND consisting of brown grey sandy slightly gravelly clay with some cobbles and red brick.			0.10						
1					AF1830	B	1.00-1.00			
2					AF1831	B	2.00-2.00	N = 6 (1, 1, 2, 1, 1, 2)		
3	Very dense grey slightly clayey/silty sandy GRAVEL with many cobbles. Gravel is fine to coarse and subrounded to subangular of limestone.			3.00	AF1832	B	3.00-3.00	N = 51 (8, 18, 16, 11, 17, 7)		
4					AF1833	B	4.00-4.00	N = 30 (3, 5, 7, 7, 8, 8)		
5					AF1834	B	5.00-5.00	N = 50 (8, 8, 14, 14, 12, 10)		
6	Dense grey slightly clayey/silty sandy GRAVEL with many cobbles. GRAVEL is fine to coarse and subrounded to subangular of limestone.			5.50	AF1835	B	6.00-6.00	N = 28 (4, 6, 6, 7, 7, 8)		
7	Very stiff black slightly sandy gravelly CLAY with occasional cobbles			6.80	AF1836	B	7.00-7.00	N = 56 (3, 15, 18, 12, 11, 15)		
8	Very dense grey slightly clayey/silty sandy GRAVEL with many cobbles. Gravel is fine to coarse and subrounded to subangular of limestone.			7.50	AF1837	B	8.00-8.00	N = 100/225 mm (15, 24, 25, 30, 45)		
9					AF1838	B	9.00-9.00	N = 52 (7, 9, 14, 15, 13, 10)		

HARD STRATA BORING/CHISELLING

WATER STRIKE DETAILS

From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
8	11	8	Hard Strata Boring Hard Strata Boring Boulder	8.00	8.00	No	6.50	20	Moderate
11	14.5	8							
15.4	15.45	2							

GROUNDWATER DETAILS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
30-07-08	6.00	6.00	4.80	End of shift
08-08-08	6.00	6.00	4.80	Start of shift
08-08-08	8.00	8.00	6.10	End of shift
11-08-08	8.00	8.00	4.55	Start of shift

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS Hand dug inspection pit excavated to 1.20m. Water added from 3.0m to aid drilling. Blowing gravels from 9.5m to 10.5m and 11.5m to 12.0m bgl. Falling and rising head test completed. Standing 5.5 days - stopped by Client due to Landowner request.

BH LOG DCD 13696.GPJ IGSL.GDT 1/10/08



GEOTECHNICAL BORING RECORD

REPORT NUMBER

13696

CONTRACT Dublin Central Development - Draft		BOREHOLE NO. BH10	
CO-ORDINATES		SHEET Sheet 2 of 2	
GROUND LEVEL (m AOD)		DATE STARTED 30/07/2008	
CLIENT Dublin Central Developments Ltd		DATE COMPLETED 13/08/2008	
ENGINEER AGL Consulting Ltd		BORED BY J. McDonnell	
RIG TYPE Dando 150		PROCESSED BY S. Letch	
BOREHOLE DIAMETER (mm) 200			
BOREHOLE DEPTH (m) 15.45			
CASING DEPTH (m) 15.45			

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Standpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
10	Very dense grey slightly clayey/silty sandy GRAVEL with many cobbles. Gravel is fine to coarse and subrounded to subangular of limestone. <i>(continued)</i>				AF1839	B	10.00-10.00		N = 76 (9, 13, 16, 24, 19, 17)	
11					AF1840	B	11.00-11.00		N = 100/160 mm (13, 39, 50, 40, 10)	
12					AF1841	B	12.00-12.00		N = 100/170 mm (12, 30, 40, 45, 15)	
13					AF1842	B	13.00-13.00		N = 100/125 mm (12, 23, 62, 38)	
14	Hard black slightly sandy gravelly CLAY with occasional cobbles.			13.80	AF1843	B	14.00-14.00		N = 100/230 mm (4, 10, 20, 35, 40, 5)	
15					AF1844	B	15.00-15.00		N = 100/75 mm (12, 43, 100)	
15.40	Obstruction - possible boulder			15.40	AF1845	B	15.45-15.45			
15.45	End of Borehole at 15.45 m			15.45						

HARD STRATA BORING/CHISELLING				WATER STRIKE DETAILS					
From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
8	11	8	Hard Strata Boring Hard Strata Boring Boulder						
11	14.5	8							
15.4	15.45	2							
INSTALLATION DETAILS				GROUNDWATER DETAILS					
Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments
					11-08-08	11.00	11.00	4.90	End of shift
					12-08-08	11.00	11.00	4.60	Start of shift
					12-08-08	14.50	14.50	5.60	End of shift
					13-08-08	14.50	14.50	4.50	Start of shift
					13-08-08	15.45	15.45	5.60	End of shift
REMARKS Hand dug inspection pit excavated to 1.20m. Water added from 3.0m to aid drilling. Blowing gravels from 9.5m to 10.5m and 11.5m to 12.0m bgl. Falling and rising head test completed. Standing 5.5 days - stopped by Client due to Landowner request.									

BH LOG DCD 13696.GPJ IGSL_GDT 1/10/08

GEOTECHNICAL BORING RECORD

REPORT NUMBER

13696

CONTRACT Dublin Central Development - Draft

BOREHOLE NO. BH12

SHEET Sheet 1 of 2

CO-ORDINATES

RIG TYPE Dando 2000

GROUND LEVEL (m AOD)

BOREHOLE DIAMETER (mm) 200

DATE STARTED 12/10/2008

DATE COMPLETED 16/10/2008

CLIENT Dublin Central Developments Ltd

BOREHOLE DEPTH (m) 13.60

BORED BY J. McDonnell

ENGINEER AGL Consulting Ltd

CASING DEPTH (m) 13.60

PROCESSED BY S. Letch

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Standpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
0	MADE GROUND consisting of brown slightly sandy gravelly clay with some red brick and concrete.									
1					AF4857	B	1.00-1.00		N = 14 (2, 2, 3, 3, 4, 4)	
2					AF4858	B	2.00-2.00		N = 11 (2, 2, 2, 3, 3, 3)	
3					AF4859	B	3.00-3.00		N = 30 (4, 8, 10, 8, 6, 6)	
4	Firm becoming stiff brown slightly sandy gravelly CLAY with occasional cobbles.			3.40	AF4860	B	4.00-4.00		N = 17 (4, 3, 4, 4, 4, 5)	
5					AF4861	B	5.00-5.00		N = 34 (4, 6, 8, 8, 9, 9)	
6	Very stiff becoming hard black slightly sandy gravelly CLAY with occasional cobbles			6.00	AF4862	B	6.00-6.00		N = 49 (6, 6, 9, 10, 12, 18)	
7					AF4863	B	7.00-7.00		N = 100/200 mm (14, 20, 35, 35, 30)	
8					AF4864	B	8.00-8.00		N = 54 (6, 8, 12, 12, 14, 16)	
9					AF4865	B	9.00-9.00		N = 55 (7, 8, 11, 14, 14, 16)	

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (h)	Comments
7.1	7.5	1	Boulder

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

GROUNDWATER DETAILS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
12-10-08	1.20	1.20	-	End of shift
13-10-08	1.20	1.20	-	Start of shift
14-10-08	7.00	7.00	-	End of shift
14-10-08	7.00	7.00	6.70	Start of shift

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
16-10-08	13.60	11.50	13.60	50mm SP

REMARKS

Hand dug inspection pit excavated to 1.20m. Night work - shift started at 1800hrs.

BH LOG DCD 13696.GPJ IGSL.GDT 5/11/08

GEOTECHNICAL BORING RECORD

REPORT NUMBER

13696

CONTRACT Dublin Central Development - Draft		BOREHOLE NO. BH12	
CO-ORDINATES		SHEET Sheet 2 of 2	
GROUND LEVEL (m AOD)		DATE STARTED 12/10/2008	
RIG TYPE Dando 2000		DATE COMPLETED 16/10/2008	
BOREHOLE DIAMETER (mm) 200		BORED BY J. McDonnell	
BOREHOLE DEPTH (m) 13.60		PROCESSED BY S. Letch	
CLIENT Dublin Central Developments Ltd			
ENGINEER AGL Consulting Ltd		CASING DEPTH (m) 13.60	

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Standpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
10	Very stiff becoming hard black slightly sandy gravelly CLAY with occasional cobbles <i>(continued)</i>				AF4866	B	10.00-10.00		N = 100/50 mm (8, 42, 100)	
11					AF4867	B	11.00-11.00		N = 100/90 mm (10, 38, 80, 20)	
12	Very dense grey slightly clayey/silty sandy GRAVEL with occasional cobbles. Gravel is fine to coarse and subrounded to subangular of limestone.			11.50	AF4868	B	12.00-12.00		N = 68 (9, 11, 15, 16, 18, 19)	
13	Hard black slightly sandy gravelly CLAY with occasional cobbles			12.50	AF4869	B	13.00-13.00		N = 100/150 mm (22, 35, 40, 60)	
13.50	Obstruction - possible boulder			13.50						
14	End of Borehole at 13.60 m			13.60						

HARD STRATA BORING/CHISELLING				WATER STRIKE DETAILS					
From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
13.5	13.6	2	Boulder	11.50	11.50	No	10.50	20	Moderate
INSTALLATION DETAILS				GROUNDWATER DETAILS					
Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments
16-10-08	13.60	11.50	13.60	50mm SP	15-10-08	12.50	12.50	11.50	End of shift
					15-10-08	12.50	12.50	11.50	Start of shift
					16-10-08	13.60	13.60	13.00	End of shift
REMARKS Hand dug inspection pit excavated to 1.20m. Night work - shift started at 1800hrs.									

BH LOG DCD 13696.GPJ IGSL.GDT 5/11/08

GEOTECHNICAL BORING RECORD

REPORT NUMBER

13696

CONTRACT Dublin Central Development - Draft

BOREHOLE NO. **W2**

SHEET Sheet 1 of 3

CO-ORDINATES

RIG TYPE Dando 3000

GROUND LEVEL (m AOD)

BOREHOLE DIAMETER (mm)

DATE STARTED 25/09/2008

DATE COMPLETED 10/10/2008

CLIENT Dublin Central Developments Ltd


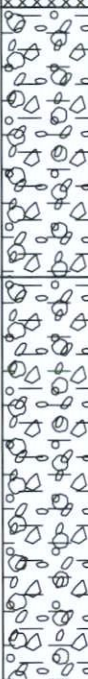
BOREHOLE DEPTH (m) 21.40

BORED BY J. Edwards / J. McDonnell

ENGINEER AGL Consulting Ltd

CASING DEPTH (m)

PROCESSED BY S. Letch

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Standpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
0	MADE GROUND consisting of brown slightly sandy gravelly clay with some red brick and concrete.									
	MADE GROUND consisting of concrete.			0.60	AG3601	B	0.50-0.50			
1	MADE GROUND consisting of brown slightly sandy gravelly clay with some red brick and concrete.			0.90	AG3602	B	1.00-1.00			
2					AG3603	B	2.00-2.00			
3					AG3604	B	3.00-3.00			
4				AG3605	B	4.00-4.00				
5	Grey slightly clayey/silty sandy GRAVEL with occasional cobbles. Gravel is fine to coarse and subrounded to subangular of limestone.			4.20	AG3606	B	5.00-5.00			
6					AG3607	B	6.00-6.00			
7	Grey slightly clayey/silty sandy GRAVEL with many cobbles. Gravel is medium to coarse and subrounded to subangular of limestone.			6.50	AG3608	B	7.00-7.00			
8					AG3609	B	8.00-8.00			
9					AG3610	B	9.00-9.00			

HARD STRATA BORING/CHISELLING

WATER STRIKE DETAILS

From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
1.7	1.8	1	Made Ground Obstruction	4.80	4.80	No	4.30	20	Moderate
2.1	2.2	1	Made Ground Obstruction						
3.1	3.2	0.75	Made Ground Obstruction						
4.8	4.9	1	Boulder						
5.2	5.3	1	Boulder						
5.7	5.8	1	Boulder						
6	8	10	6.5hrs Chiselling 3.5hrs Hard Strata Boring						
8	9	10	7hrs Chiselling 3hrs Hard Strata Boring						
9	11	10	7.5hrs Chiselling 2.5hrs Hard Strata Boring						

GROUNDWATER DETAILS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
25-09-08	2.00	2.00	-	End of shift
26-09-08	2.00	2.00	-	Start of shift
26-09-08	6.00	6.00	5.50	End of shift
27-09-08	6.00	6.00	5.40	Start of shift
27-09-08	8.00	8.00	5.00	End of shift
28-09-08	8.00	8.00	4.20	Start of shift
28-09-08	9.00	9.00	4.80	End of shift
29-09-08	9.00	9.00	4.50	Start of shift

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS

Hand dug inspection pit excavated to 1.20m. Water added from 3.0m to aid drilling. Blowing gravels from 4.9m to 6m bgl. Casing size reduced from 300mm to 250mm diameter at 14.0m bgl. Casing left in borehole to allow rotary follow on. Re-set up rig on 09/10/08 to advance hole after rotary rig advanced to rockhead and gravel falling in behind hammer.

BH LOG DCD 13696 GPJ IGSL GDT 5/11/08

GEOTECHNICAL BORING RECORD

REPORT NUMBER

13696

CONTRACT Dublin Central Development - Draft		BOREHOLE NO. W2	
CO-ORDINATES		SHEET Sheet 2 of 3	
GROUND LEVEL (m AOD)		DATE STARTED 25/09/2008	
CLIENT Dublin Central Developments Ltd		DATE COMPLETED 10/10/2008	
ENGINEER AGL Consulting Ltd		BORED BY J. Edwards / J. McDonnell	
RIG TYPE Dando 3000		PROCESSED BY S. Letch	
BOREHOLE DIAMETER (mm)		BOREHOLE DEPTH (m) 21.40	
CASING DEPTH (m)			

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Standpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
10	Grey slightly clayey/silty sandy GRAVEL with many cobbles. Gravel is medium to coarse and subrounded to subangular of limestone. (continued)				AG3611	B	10.00-10.00			
11	Grey slightly clayey/silty sandy GRAVEL with many cobbles and bands of dark grey clay. Gravel is medium to coarse and subrounded to subangular of limestone.			11.20	AG3612	B	11.00-11.00			
			11.40							
12	Grey slightly clayey/silty sandy GRAVEL with many cobbles. Gravel is medium to coarse and subrounded to subangular of limestone.				AG3613	B	12.00-12.00			
13					AG3614	B	13.00-13.00			
14					AG3615	B	14.00-14.00			
15					AG3616	B	15.00-15.00			
16	Brown slightly sandy gravelly CLAY with occasional cobbles			15.50	AG3617	B	16.00-16.00			
17	Black slightly sandy gravelly CLAY with occasional cobbles Re-set up rig after rotary rig advanced to rockhead - gravel falling behind hammer so must be cased off.			16.40						
18										
19										

HARD STRATA BORING/CHISELLING			
From (m)	To (m)	Time (h)	Comments
11	12.2	10	7hrs Chiselling 3hrs Hard Strata Boring
12.2	14	10	7hrs Chiselling 3hrs Hard Strata Boring
14	16	10	6hrs Chiselling 4hrs Hard Strata Boring
16	16.2	2	Hard Strata Boring
16.2	16.4	3	Boulder
16.4	19.5	8	1hr Chiselling 7hrs Hard Strata Boring
19.5	21.4	8	2hrs Chiselling 6hrs Hard Strata Boring

WATER STRIKE DETAILS					
Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

GROUNDWATER DETAILS					
Date	Hole Depth	Casing Depth	Depth to Water	Comments	
29-09-08	11.00	11.00	4.80	End of shift	
30-09-08	11.00	11.00	4.50	Start of shift	
30-09-08	12.20	12.20	4.80	End of shift	
01-10-08	12.20	12.20	4.80	Start of shift	
01-10-08	14.00	14.00	5.00	End of shift	
02-10-08	14.00	14.00	4.50	Start of shift	
02-10-08	16.00	16.00	5.00	End of shift	
03-10-08	16.00	16.00	4.50	Start of shift	
03-10-08	16.40	16.40	4.90	End of shift	
09-10-08	16.40	16.40	4.80	Start of shift	
09-10-08	19.50	19.50	5.10	End of shift	
10-10-08	19.50	19.50	4.90	Start of shift	

INSTALLATION DETAILS				
Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS Hand dug inspection pit excavated to 1.20m. Water added from 3.0m to aid drilling. Blowing gravels from 4.9m to 6m bgl. Casing size reduced from 300mm to 250mm diameter at 14.0m bgl. Casing left in borehole to allow rotary follow on. Re-set up rig on 09/10/08 to advance hole after rotary rig advanced to rockhead and gravel falling in behind hammer.

BH LOG DCD 13696.GPJ IGSL.GDT 5/11/08

GEOTECHNICAL BORING RECORD

REPORT NUMBER

13696

CONTRACT Dublin Central Development - Draft

BOREHOLE NO. W2

SHEET Sheet 3 of 3

CO-ORDINATES

RIG TYPE Dando 3000

GROUND LEVEL (m AOD)

BOREHOLE DIAMETER (mm)

DATE STARTED 25/09/2008

DATE COMPLETED 10/10/2008

CLIENT Dublin Central Developments Ltd

BOREHOLE DEPTH (m) 21.40

BORED BY J. Edwards / J. McDonnell

ENGINEER AGL Consulting Ltd

CASING DEPTH (m)

PROCESSED BY S. Letch

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Standpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
20	Grey slightly clayey/silty sandy GRAVEL with many cobbles. Gravel is medium to coarse and subrounded to subangular of limestone.			20.00						
21	Obstruction - rockhead End of Borehole at 21.40 m			21.30 21.40						
22										
23										
24										
25										
26										
27										
28										
29										

HARD STRATA BORING/CHISELLING

WATER STRIKE DETAILS

From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

GROUNDWATER DETAILS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
10-10-08	21.40	21.40	5.00	End of shift

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS Hand dug inspection pit excavated to 1.20m. Water added from 3.0m to aid drilling. Blowing gravels from 4.9m to 6m bgl. Casing size reduced from 300mm to 250mm diameter at 14.0m bgl. Casing left in borehole to allow rotary follow on. Re-set up rig on 09/10/08 to advance hole after rotary rig advanced to rockhead and gravel falling in behind hammer.

BH LOG DCD 13696 GPFJ IGSL GDT 5/11/08



GEOTECHNICAL BORING RECORD

REPORT NUMBER

13696

CONTRACT Dublin Central Development - Draft

BOREHOLE NO. **BH14**

CO-ORDINATES ()

RIG TYPE Dando 2000

SHEET Sheet 1 of 2

GROUND LEVEL (m AOD)

BOREHOLE DIAMETER (mm) 200

DATE STARTED 09/11/2008

DATE COMPLETED 13/11/2008

CLIENT Dublin Central Developments Ltd
ENGINEER AGL Consulting Ltd

BOREHOLE DEPTH (m) 12.00

BORED BY J. McDonnell

CASING DEPTH (m) 12.00

PROCESSED BY S. Letch

Depth (m)	Description	Legend	Elevation	Samples				Field Test Results	Standpipe Details
				Depth (m)	Ref. Number	Sample Type	Depth (m)		
0	MADE GROUND consisting of granite cobblelock. MADE GROUND consisting of concrete. MADE GROUND consisting of brown slightly sandy gravelly clay with some red brick and concrete.			0.10					
0.20									
1					AF4832	ENV B	1.00-1.00 1.00-1.00		N = 18 (3, 3, 5, 5, 4, 4)
2					AF4833	ENV B	2.00-2.00 2.00-2.00		N = 12 (2, 2, 3, 3, 3, 3)
3	Stiff brown slightly sandy gravelly CLAY.		3.20		AF4834	ENV B	3.00-3.00 3.00-3.00		N = 11 (2, 2, 2, 3, 3, 3)
4					AF4835	ENV B	4.00-4.00 4.00-4.00		N = 22 (3, 3, 5, 5, 6, 6)
5	Very stiff brown slightly sandy very gravelly CLAY.		5.00		AF4836	B	5.00-5.00		N = 57 (8, 14, 16, 16, 15, 10)
6					AF4837	B	6.00-6.00		N = 84 (14, 20, 20, 24, 20, 20)
7	Very dense grey slightly clayey/silty sandy GRAVEL with occasional cobbles. Gravel is fine to coarse and subrounded to subangular of limestone.		6.50		AF4838	B	7.00-7.00		N = 84 (9, 14, 15, 19, 20, 30)
8					AF4839	B	8.00-8.00		N = 100/225 mm (14, 21, 30, 30, 40)
9					AF4840	B	9.00-9.00		N = 100/275 mm (12, 16, 20, 20, 32, 28)

HARD STRATA BORING/CHISELLING			
From (m)	To (m)	Time (h)	Comments
8.1	8.3	1	Boulder

WATER STRIKE DETAILS					
Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
6.60	6.60	No	5.00	5	Moderate

GROUNDWATER DETAILS					
Date	Hole Depth	Casing Depth	Depth to Water	Comments	
10-11-08	6.50	6.50	-	End of shift	
11-11-08	6.50	6.50	6.00	Start of shift	
12-11-08	9.70	9.70	5.60	End of shift	
13-11-08	9.70	9.70	5.40	Start of shift	

INSTALLATION DETAILS				
Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS Hand dug inspection pit excavated to 1.20m. Night work - shift started at 1800hrs to accommodate Moore Street traders. Shift finished at 2300hrs due to T2 licence restrictions. Standing 5 hours each day totalling 20 hours standing. 2 No. Falling and 1 No. Rising head test completed. Casing left in borehole to allow rotary follow on.

BH LOG DCD 13696.GPJ IGSL.GDT 26/11/08



GEOTECHNICAL BORING RECORD

REPORT NUMBER

13696

CONTRACT Dublin Central Development - Draft

BOREHOLE NO. BH14

CO-ORDINATES()

RIG TYPE Dando 2000

SHEET Sheet 2 of 2

GROUND LEVEL (m AOD)

BOREHOLE DIAMETER (mm) 200

DATE STARTED 09/11/2008

DATE COMPLETED 13/11/2008

CLIENT Dublin Central Developments Ltd
ENGINEER AGL Consulting Ltd

BOREHOLE DEPTH (m) 12.00

CASING DEPTH (m) 12.00

BORED BY J. McDonnell

PROCESSED BY S. Letch

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Standpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
10	Very dense grey slightly clayey/silty sandy GRAVEL with occasional cobbles. Gravel is fine to coarse and subrounded to subangular of limestone. (continued)				AF4841	B	10.00-10.00		N = 82 (9, 13, 16, 19, 22, 25)	
11					AF4842	B	11.00-11.00			
12	End of Borehole at 12.00 m			12.00						
13										
14										
15										
16										
17										
18										
19										

HARD STRATA BORING/CHISELLING				WATER STRIKE DETAILS					
From (m)	To (m)	Time (h)	Comments	Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
11.9	12	1.25	Boulder						

GROUNDWATER DETAILS				
Date	Hole Depth	Casing Depth	Depth to Water	Comments
13-11-08	12.00	12.00	5.50	End of shift

INSTALLATION DETAILS				
Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS Hand dug inspection pit excavated to 1.20m. Night work - shift started at 1800hrs to accommodate Moore Street traders. Shift finished at 2300hrs due to T2 licence restrictions. Standing 5 hours each day totalling 20 hours standing. 2 No. Falling and 1 No. Rising head test completed. Casing left in borehole to allow rotary follow on.

BH LOG DCD 13696 GPJ IGSL GDT 26/11/08



GEOTECHNICAL BORING RECORD

REPORT NUMBER

13696

CONTRACT Dublin Central Development - Draft		BOREHOLE NO. BH15	
CO-ORDINATES		SHEET Sheet 1 of 3	
GROUND LEVEL (m AOD)		RIG TYPE Dando 150	DATE STARTED 15/09/2008
CLIENT Dublin Central Developments Ltd		BOREHOLE DIAMETER (mm) 200	DATE COMPLETED 24/09/2008
ENGINEER AGL Consulting Ltd		BOREHOLE DEPTH (m) 21.20	BORED BY J. McDonnell
		CASING DEPTH (m) 21.20	PROCESSED BY S. Letch

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Standpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
0	MADE GROUND consisting of tarmacadam.			0.20						
0	MADE GROUND consisting of brown slightly sandy gravelly clay with some red brick, ash and concrete.				AF4821	B	1.20-1.20		N = 4 (1, 1, 1, 1, 1, 1)	
2					AF4822	B	2.00-2.00		N = 7 (1, 2, 2, 2, 1, 2)	
3					AF4823	B	3.00-3.00		N = 17 (4, 4, 4, 3, 2, 8)	
4	Very dense grey slightly clayey/silty sandy GRAVEL with occasional cobbles. Gravel is fine to coarse and subrounded to subangular of limestone.			3.50	AF4824	B	4.00-4.00		N = 111 (12, 16, 25, 30, 27, 29)	
5					AF4825	B	5.00-5.00		N = 100/150 mm (35, 48, 52)	
6					AF4826	B	6.00-6.00		N = 119 (15, 22, 30, 29, 27, 33)	
7					AF4827	B	7.00-7.00		N = 17 (4, 6, 4, 5, 4, 4)	
8					AF4828	B	8.00-8.00		N = 56 (6, 9, 11, 16, 15, 14)	
9					AF4829	B	9.00-9.00		N = 87 (9, 11, 16, 25, 20, 26)	

HARD STRATA BORING/CHISELLING

From (m)	To (m)	Time (h)	Comments
3.5	3.8	0.5	Boulder
3.9	4	0.5	Boulder
4.8	5	1	Boulder
5.8	6	0.5	Boulder
11	14.4	8	Hard Strata Boring
14.4	16.7	8	Hard Strata Boring
16.7	18.5	8	Hard Strata Boring
18.5	21	6	Hard Strata Boring
21	21.2	2	Boulder

WATER STRIKE DETAILS

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments
6.00	6.00	No	4.70	5	Moderate

GROUNDWATER DETAILS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
15-09-08	3.50	3.50	-	End of shift
16-09-08	3.50	3.50	-	Start of shift
16-09-08	6.00	6.00	-	End of shift
17-09-08	6.00	6.00	-	Start of shift

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS Hand dug inspection pit excavated to 1.20m. Water added from 3.5m to aid drilling.

BH LOG DCD 13696.GPJ IGSL.GDT 1/10/08



GEOTECHNICAL BORING RECORD

REPORT NUMBER

13696

CONTRACT Dublin Central Development - Draft

BOREHOLE NO. **BH15**
SHEET Sheet 2 of 3

CO-ORDINATES

RIG TYPE Dando 150

GROUND LEVEL (m AOD)

BOREHOLE DIAMETER (mm) 200

DATE STARTED 15/09/2008

DATE COMPLETED 24/09/2008

CLIENT Dublin Central Developments Ltd

BOREHOLE DEPTH (m) 21.20

BORED BY J. McDonnell

ENGINEER AGL Consulting Ltd

CASING DEPTH (m) 21.20

PROCESSED BY S. Letch

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Standpipe Details	
					Ref. Number	Sample Type	Depth (m)	Recovery			
10	Very dense grey slightly clayey/silty sandy GRAVEL with occasional cobbles. Gravel is fine to coarse and subrounded to subangular of limestone. <i>(continued)</i>				AF4830	B	10.00-10.00		N = 54 (7, 10, 11, 11, 17, 15)		
11					AF4831	B	11.00-11.00				N = 47 (3, 5, 9, 9, 14, 15)
12					AF4832	B	12.00-12.00				N = 69 (5, 7, 20, 15, 16, 18)
13					AF4833	B	13.00-13.00				N = 100/150 mm (3, 11, 26, 74)
14	Hard black slightly sandy gravelly CLAY with occasional cobbles			14.40	AF4834	B	14.00-14.00				
15					AF4835	U	14.50-14.50	1% rec	150 blows		
16					AF4836	B	15.50-15.50		N = 100/240 mm (11, 15, 20, 25, 45, 10)		
17					AF4837	B	16.50-16.50		N = 100 (10, 15, 19, 24, 30, 27)		
18					AF4838	B	17.50-17.50		N = 100/150 mm (20, 29, 40, 60)		
19					AF4839	B	18.50-18.50		N = 100/210 mm (12, 26, 34, 37, 29)		
					AF4840	B	19.50-19.50		N = 100/180 mm (12, 30, 36, 44, 20)		

HARD STRATA BORING/CHISELLING

WATER STRIKE DETAILS

From (m)	To (m)	Time (h)	Comments
3.5	3.8	0.5	Boulder
3.9	4	0.5	Boulder
4.8	5	1	Boulder
5.8	6	0.5	Boulder
11	14.4	8	Hard Strata Boring
14.4	16.7	8	Hard Strata Boring
16.7	18.5	8	Hard Strata Boring
18.5	21	6	Hard Strata Boring
21	21.2	2	Boulder

Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

GROUNDWATER DETAILS

Date	Hole Depth	Casing Depth	Depth to Water	Comments
17-09-08	11.00	11.00	5.50	End of shift
18-09-08	11.00	11.00	5.50	Start of shift
18-09-08	14.40	14.40	5.80	End of shift
19-09-08	14.40	14.40	5.80	Start of shift
19-09-08	16.70	16.70	6.40	End of shift
22-09-08	16.70	16.70	6.10	Start of shift
22-09-08	18.50	18.50	6.50	End of shift
23-09-08	18.50	18.50	6.40	Start of shift

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS Hand dug inspection pit excavated to 1.20m. Water added from 3.5m to aid drilling.

BH LOG DCD 13696.GPJ IGSL.GDT 1/10/08



GEOTECHNICAL BORING RECORD

REPORT NUMBER

13696

CONTRACT Dublin Central Development - Draft		BOREHOLE NO. BH15
CO-ORDINATES		SHEET Sheet 3 of 3
GROUND LEVEL (m AOD)	RIG TYPE Dando 150	DATE STARTED 15/09/2008
	BOREHOLE DIAMETER (mm) 200	DATE COMPLETED 24/09/2008
CLIENT Dublin Central Developments Ltd	BOREHOLE DEPTH (m) 21.20	BORED BY J. McDonnell
ENGINEER AGL Consulting Ltd	CASING DEPTH (m) 21.20	PROCESSED BY S. Letch

Depth (m)	Description	Legend	Elevation	Depth (m)	Samples				Field Test Results	Standpipe Details
					Ref. Number	Sample Type	Depth (m)	Recovery		
20	Hard black slightly sandy gravelly CLAY with occasional cobbles (<i>continued</i>)				AF4841	B	20.50-20.50		N = 100/175 mm (13, 29, 35, 42, 23)	
21	End of Borehole at 21.20 m			21.20						
22										
23										
24										
25										
26										
27										
28										
29										

HARD STRATA BORING/CHISELLING			
From (m)	To (m)	Time (h)	Comments
3.5	3.8	0.5	Boulder
3.9	4	0.5	Boulder
4.8	5	1	Boulder
5.8	6	0.5	Boulder
11	14.4	8	Hard Strata Boring
14.4	16.7	8	Hard Strata Boring
16.7	18.5	8	Hard Strata Boring
18.5	21	6	Hard Strata Boring
21	21.2	2	Boulder

WATER STRIKE DETAILS					
Water Strike	Casing Depth	Sealed At	Rise To	Time (min)	Comments

GROUNDWATER DETAILS				
Date	Hole Depth	Casing Depth	Depth to Water	Comments
23-09-08	21.20	21.20	6.00	End of shift

INSTALLATION DETAILS				
Date	Tip Depth	RZ Top	RZ Base	Type

REMARKS Hand dug inspection pit excavated to 1.20m. Water added from 3.5m to aid drilling.

BH LOG DCD 13696.GPJ IGSL.GDT 1/10/08



GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

13696

CONTRACT Dublin Central Development - Draft

DRILLHOLE NO OW1
SHEET Sheet 1 of 4

CO-ORDINATES (_)

GROUND LEVEL (m)
CORE DIAMETER (mm)

DATE STARTED 15/09/2008
DATE COMPLETED 16/09/2008

CLIENT ENGINEER Dublin Central Developments Ltd.
AGL Consulting Engineers

INCLINATION -90
FLUSH Polymer Gel

DRILLED BY Millennium
LOGGED BY A. Mahony

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Strata description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
0					0 250 500			Inspection Pit - observed by driller as made ground consisting of gravel and cobbles.	1.20				
1								SYMMETRIX OPEN HOLE DRILLING: Observed by driller as made ground consisting of brick, wood and clay.					
2													
3													
4								SYMMETRIX OPEN HOLE DRILLING: Observed by driller as returns of gravel	4.20				
5													
6													
7													
8													
9													

REMARKS

Hand dug inspection pit to 1.2m.

INSTALLATION REMARKS

Headworks.

GROUNDWATER DETAILS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
16-09-08	13.50	10.50	13.50	50mm SP
16-09-08	33.00	27.00	33.00	50mm SP

IGSL RC NEWLOG 10M PER PG 13696 GPJ IGSL GDT 11/11/08



GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

13696

CONTRACT Dublin Central Development - Draft		DRILLHOLE NO OW1
CO-ORDINATES (_)		SHEET Sheet 2 of 4
CLIENT Dublin Central Developments Ltd.		DATE STARTED 15/09/2008
ENGINEER AGL Consulting Engineers		DATE COMPLETED 16/09/2008
GROUND LEVEL (m)		DRILLED BY Millennium
CORE DIAMETER (mm)		LOGGED BY A. Mahony
INCLINATION -90		
FLUSH Polymer Gel		

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Strata description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
10					0 250 500			SYMMETRIX OPEN HOLE DRILLING: Observed by driller as returns of gravel <i>(continued)</i>					
11													
12													
13									13.20				
14								SYMMETRIX OPEN HOLE DRILLING: Observed by driller as returns of clay and gravel					
15													
16									16.20				
17								SYMMETRIX OPEN HOLE DRILLING: Observed by driller as returns of clay					
18													
19									19.20				

REMARKS Hand dug inspection pit to 1.2m.					INSTALLATION REMARKS Headworks.				
					GROUNDWATER DETAILS				
		Date	Hole Depth	Casing Depth	Depth to Water	Comments			
INSTALLATION DETAILS									
Date	Tip Depth	RZ Top	RZ Base	Type					
16-09-08	13.50	10.50	13.50	50mm SP					
16-09-08	33.00	27.00	33.00	50mm SP					

IGSL RC NEWLOG 10M PER PG 13696 GPJ IGSL GDT 11/11/08



GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

13696

CONTRACT Dublin Central Development - Draft

DRILLHOLE NO OW1
SHEET Sheet 3 of 4

CO-ORDINATES (_)

GROUND LEVEL (m)
CORE DIAMETER (mm)

DATE STARTED 15/09/2008
DATE COMPLETED 16/09/2008

CLIENT ENGINEER Dublin Central Developments Ltd.
AGL Consulting Engineers

INCLINATION -90
FLUSH Polymer Gel

DRILLED BY Millennium
LOGGED BY A. Mahony

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Strata description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
20					0 250 500			SYMMETRIX OPEN HOLE DRILLING: Observed by driller as returns of clay and gravel (<i>continued</i>)	20.70				
21								SYMMETRIX OPEN HOLE DRILLING: Observed by driller as returns of gravel and cobbles.	21.50				
22								SYMMETRIX OPEN HOLE DRILLING: Observed by driller as returns of weathered rock	22.00				
23								OPEN HOLE DRILLING: No recovery, observed by driller as returns of rock.					
24													
25													
26													
27													
28													
29													

IGSL RC NEW LOG 10M PER PG 13696 GPJ IGSL GDT 11/11/08

REMARKS					INSTALLATION REMARKS				
Hand dug inspection pit to 1.2m.					Headworks.				
INSTALLATION DETAILS					GROUNDWATER DETAILS				
Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments
16-09-08	13.50	10.50	13.50	50mm SP					
16-09-08	33.00	27.00	33.00	50mm SP					



GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

13696

CONTRACT Dublin Central Development - Draft

DRILLHOLE NO OW1

SHEET Sheet 4 of 4

CO-ORDINATES(_)

GROUND LEVEL (m)

CORE DIAMETER (mm)

DATE STARTED 15/09/2008

DATE COMPLETED 16/09/2008

CLIENT ENGINEER Dublin Central Developments Ltd.
AGL Consulting Engineers

INCLINATION -90
FLUSH Polymer Gel

DRILLED BY Millennium
LOGGED BY A. Mahony

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Strata description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
30					0 250 500			OPEN HOLE DRILLING: No recovery, observed by driller as returns of rock. (continued)					
31													
32													
33								End of Corehole at 33 (m)	33.00				
34													
35													
36													
37													
38													
39													

REMARKS

Hand dug inspection pit to 1.2m.

INSTALLATION REMARKS

Headworks.

GROUNDWATER DETAILS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
16-09-08	13.50	10.50	13.50	50mm SP
16-09-08	33.00	27.00	33.00	50mm SP

IGSL RC NEWLOG 10M PER PG 13696.GPJ IGSL_GDT 11/11/08



GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

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CONTRACT Dublin Central Development - Draft

DRILLHOLE NO RC08
SHEET Sheet 1 of 33

CO-ORDINATES (_)

GROUND LEVEL (m)
CORE DIAMETER (mm) 102

DATE STARTED 13/09/2008
DATE COMPLETED 14/09/2008

CLIENT ENGINEER Dublin Central Developments Ltd.
AGL Consulting Engineers

INCLINATION -90
FLUSH Polymer Gel

DRILLED BY Millennium
LOGGED BY A. Mahony

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
0								Inspection Pit - observed by driller as made ground consisting of gravel, sand, brick and timber.					

REMARKS

Hand dug inspection pit to 1.2m.

INSTALLATION REMARKS

Headworks.

GROUNDWATER DETAILS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
14-09-08	13.00	6.00	13.00	50mm SP
14-09-08	32.50	26.50	32.50	50mm SP

IGSL RC NEW LOG 1M PER PG 13696 GPJ IGSL GDT 11/11/08



GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

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CONTRACT Dublin Central Development - Draft

DRILLHOLE NO RC08
SHEET Sheet 2 of 33

CO-ORDINATES(_)

GROUND LEVEL (m)
CORE DIAMETER (mm) 102

DATE STARTED 13/09/2008
DATE COMPLETED 14/09/2008

CLIENT Dublin Central Developments Ltd.
ENGINEER AGL Consulting Engineers

INCLINATION -90
FLUSH Polymer Gel

DRILLED BY Millennium
LOGGED BY A. Mahony

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
1								Inspection Pit - observed by driller as made ground consisting of gravel, sand, brick and timber. <i>(continued)</i> SYMMETRIX OPEN HOLE DRILLING: Observed by driller as returns of gravelly clay with cobbles	1.20				

REMARKS
Hand dug inspection pit to 1.2m.

INSTALLATION REMARKS
Headworks.

GROUNDWATER DETAILS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
14-09-08	13.00	6.00	13.00	50mm SP
14-09-08	32.50	26.50	32.50	50mm SP

IGSL RC NEWLOG IM PER PG 13696 GPJ IGSL.GDT 11/11/08



GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

13696

CONTRACT Dublin Central Development - Draft

DRILLHOLE NO RC08
SHEET Sheet 3 of 33

CO-ORDINATES(_)

GROUND LEVEL (m) 102
CORE DIAMETER (mm) -90

DATE STARTED 13/09/2008
DATE COMPLETED 14/09/2008

CLIENT ENGINEER Dublin Central Developments Ltd.
 AGL Consulting Engineers

INCLINATION FLUSH
 Polymer Gel

DRILLED BY Millennium
LOGGED BY A. Mahony

2	Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
						0 250 500	0 250 500		SYMMETRIX OPEN HOLE DRILLING: Observed by driller as returns of gravelly clay with cobbles (continued)	2.70				
REMARKS Hand dug inspection pit to 1.2m.														
INSTALLATION REMARKS Headworks:														
SYMMETRIX OPEN HOLE DRILLING: Observed by driller as returns of gravelly clay														

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
14-09-08	13.00	6.00	13.00	50mm SP
14-09-08	32.50	26.50	32.50	50mm SP

GROUNDWATER DETAILS

Date	Hole Depth	Casing Depth	Depth to Water	Comments



GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

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CONTRACT Dublin Central Development - Draft		DRILLHOLE NO RC08	SHEET Sheet 4 of 33
CO-ORDINATES (_)		GROUND LEVEL (m)	
CLIENT Dublin Central Developments Ltd. ENGINEER AGL Consulting Engineers		CORE DIAMETER (mm) 102	DATE STARTED 13/09/2008 DATE COMPLETED 14/09/2008
		INCLINATION -90 FLUSH Polymer Gel	DRILLED BY Millennium LOGGED BY A. Mahony

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
3								SYMMETRIX OPEN HOLE DRILLING: Observed by driller as returns of gravelly clay <i>(continued)</i>					

IGSL RC NEWLOG 1M PER PG 13696.GPJ IGSL GDT 11/11/08

REMARKS					INSTALLATION REMARKS				
Hand dug inspection pit to 1.2m.					Headworks.				
					GROUNDWATER DETAILS				
Date	Hole Depth	Casing Depth	Depth to Water	Comments					
INSTALLATION DETAILS									
Date	Tip Depth	RZ Top	RZ Base	Type					
14-09-08	13.00	6.00	13.00	50mm SP					
14-09-08	32.50	26.50	32.50	50mm SP					



GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

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CONTRACT Dublin Central Development - Draft

DRILLHOLE NO RC08
SHEET Sheet 5 of 33

CO-ORDINATES (_)

GROUND LEVEL (m)
CORE DIAMETER (mm) 102

DATE STARTED 13/09/2008
DATE COMPLETED 14/09/2008

CLIENT ENGINEER Dublin Central Developments Ltd.
AGL Consulting Engineers

INCLINATION -90
FLUSH Polymer Gel

DRILLED BY Millennium
LOGGED BY A. Mahony

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
4								SYMMETRIX OPEN HOLE DRILLING: Observed by driller as returns of gravelly clay <i>(continued)</i>	4.20				
								SYMMETRIX OPEN HOLE DRILLING: Observed by driller as returns of gravel.					

IGSL RC NEW LOG-1M PER PG 13696.GPJ IGSL_GDT 11/11/08

REMARKS Hand dug inspection pit to 1.2m.					INSTALLATION REMARKS Headworks.				
					GROUNDWATER DETAILS				
Date	Hole Depth	Casing Depth	Depth to Water	Comments					
INSTALLATION DETAILS									
Date	Tip Depth	RZ Top	RZ Base	Type					
14-09-08	13.00	6.00	13.00	50mm SP					
14-09-08	32.50	26.50	32.50	50mm SP					



GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

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CONTRACT Dublin Central Development - Draft		DRILLHOLE NO RC08
		SHEET Sheet 6 of 33
CO-ORDINATES (_)		DATE STARTED 13/09/2008
		DATE COMPLETED 14/09/2008
CLIENT Dublin Central Developments Ltd.		DRILLED BY Millennium
ENGINEER AGL Consulting Engineers		LOGGED BY A. Mahony
		GROUND LEVEL (m)
		CORE DIAMETER (mm) 102
		INCLINATION -90
		FLUSH Polymer Gel

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
5								SYMMETRIX OPEN HOLE DRILLING: Observed by driller as returns of gravel. <i>(continued)</i>					

REMARKS Hand dug inspection pit to 1.2m.					INSTALLATION REMARKS Headworks.								
					GROUNDWATER DETAILS								
					Date	Hole Depth	Casing Depth	Depth to Water	Comments				
INSTALLATION DETAILS													
Date	Tip Depth	RZ Top	RZ Base	Type									
14-09-08	13.00	6.00	13.00	50mm SP									
14-09-08	32.50	26.50	32.50	50mm SP									

IGSL RC NEWLOG 1M PER PG 13696.GPJ IGSL.GDT 11/11/08



GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

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CONTRACT Dublin Central Development - Draft

DRILLHOLE NO RC08
SHEET Sheet 7 of 33

CO-ORDINATES(_)

GROUND LEVEL (m)
CORE DIAMETER (mm) 102

DATE STARTED 13/09/2008
DATE COMPLETED 14/09/2008

CLIENT Dublin Central Developments Ltd.
ENGINEER AGL Consulting Engineers

INCLINATION -90
FLUSH Polymer Gel

DRILLED BY Millennium
LOGGED BY A. Mahony

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
0								SYMMETRIX OPEN HOLE DRILLING: Observed by driller as returns of gravel. <i>(continued)</i>					

IGSL RC NEWLOG 1M PER PG 13696.GPJ IGSL_GDT 11/11/08

REMARKS
Hand dug inspection pit to 1.2m.

INSTALLATION REMARKS
Headworks.

GROUNDWATER DETAILS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
14-09-08	13.00	6.00	13.00	50mm SP
14-09-08	32.50	26.50	32.50	50mm SP



GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

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CONTRACT Dublin Central Development - Draft	DRILLHOLE NO RC08
	SHEET Sheet 8 of 33
CO-ORDINATES (_)	GROUND LEVEL (m)
	CORE DIAMETER (mm) 102
CLIENT Dublin Central Developments Ltd.	INCLINATION -90
ENGINEER AGL Consulting Engineers	FLUSH Polymer Gel
	DATE STARTED 13/09/2008
	DATE COMPLETED 14/09/2008
	DRILLED BY Millennium
	LOGGED BY A. Mahony

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
7								SYMMETRIX OPEN HOLE DRILLING: Observed by driller as returns of gravel. <i>(continued)</i>					

REMARKS Hand dug inspection pit to 1.2m.	INSTALLATION REMARKS Headworks.															
	GROUNDWATER DETAILS															
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Date	Hole Depth	Casing Depth	Depth to Water	Comments												
INSTALLATION DETAILS																
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Date	Tip Depth	RZ Top	RZ Base	Type												
14-09-08	13.00	6.00	13.00	50mm SP												
14-09-08	32.50	26.50	32.50	50mm SP												

IGSL RC NEWLOG 1M PER PG 13696.GPJ IGSL GDT 11/11/08



GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

13696

CONTRACT Dublin Central Development - Draft

DRILLHOLE NO RC08
SHEET Sheet 9 of 33

CO-ORDINATES (_)

GROUND LEVEL (m)
CORE DIAMETER (mm) 102

DATE STARTED 13/09/2008
DATE COMPLETED 14/09/2008

CLIENT Dublin Central Developments Ltd.
ENGINEER AGL Consulting Engineers

INCLINATION -90
FLUSH Polymer Gel

DRILLED BY Millennium
LOGGED BY A. Mahony

Downhole Depth (m)	Core Run Depth (m)	T.C.R. %	S.C.R. %	R.Q.D. %	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
8					0 250 500			SYMMETRIX OPEN HOLE DRILLING: Observed by driller as returns of gravel. <i>(continued)</i>					

IGSL RC NEWLOG 1M PER PG 13696 GPJ IGSL GDT 11/11/08

REMARKS					INSTALLATION REMARKS				
Hand dug inspection pit to 1.2m.					Headworks.				
INSTALLATION DETAILS					GROUNDWATER DETAILS				
Date	Tip Depth	RZ Top	RZ Base	Type	Date	Hole Depth	Casing Depth	Depth to Water	Comments
14-09-08	13.00	6.00	13.00	50mm SP					
14-09-08	32.50	26.50	32.50	50mm SP					



GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

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CONTRACT Dublin Central Development - Draft	DRILLHOLE NO RC08
CO-ORDINATES (_)	SHEET Sheet 10 of 33
CLIENT Dublin Central Developments Ltd. ENGINEER AGL Consulting Engineers	DATE STARTED 13/09/2008 DATE COMPLETED 14/09/2008
GROUND LEVEL (m) CORE DIAMETER (mm) 102 INCLINATION -90 FLUSH Polymer Gel	DRILLED BY Millennium LOGGED BY A. Mahony

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
0					0 250 500			SYMMETRIX OPEN HOLE DRILLING: Observed by driller as returns of gravel. <i>(continued)</i>					

REMARKS Hand dug inspection pit to 1.2m.	INSTALLATION REMARKS Headworks.															
	GROUNDWATER DETAILS															
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14-09-08	13.00	6.00	13.00	50mm SP												
14-09-08	32.50	26.50	32.50	50mm SP												

IGSL RC NEWLOG 1M PER PG 13696.GPJ IGSL GDT 11/11/08



GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

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CONTRACT Dublin Central Development - Draft	DRILLHOLE NO RC08
	SHEET Sheet 11 of 33
CO-ORDINATES (_)	GROUND LEVEL (m)
	CORE DIAMETER (mm) 102
CLIENT ENGINEER Dublin Central Developments Ltd. AGL Consulting Engineers	INCLINATION -90
	FLUSH Polymer Gel
	DATE STARTED 13/09/2008
	DATE COMPLETED 14/09/2008
	DRILLED BY Millennium
	LOGGED BY A. Mahony

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
10								SYMMETRIX OPEN HOLE DRILLING: Observed by driller as returns of gravel. <i>(continued)</i>					

IGSL RC NEWLOG TM PER PG 13696 GPJ IGSL GDT 11/11/08

REMARKS Hand dug inspection pit to 1.2m.	INSTALLATION REMARKS Headworks.															
	GROUNDWATER DETAILS															
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INSTALLATION DETAILS																
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14-09-08	13.00	6.00	13.00	50mm SP												
14-09-08	32.50	26.50	32.50	50mm SP												



GEOTECHNICAL CORE LOG RECORD

REPORT NUMBER

13696

CONTRACT Dublin Central Development - Draft

DRILLHOLE NO RC08
SHEET Sheet 12 of 33

CO-ORDINATES (_)

GROUND LEVEL (m)
CORE DIAMETER (mm) 102

DATE STARTED 13/09/2008
DATE COMPLETED 14/09/2008

CLIENT Dublin Central Developments Ltd.
ENGINEER AGL Consulting Engineers

INCLINATION -90
FLUSH Polymer Gel

DRILLED BY Millennium
LOGGED BY A. Mahony

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
11								SYMMETRIX OPEN HOLE DRILLING: Observed by driller as returns of gravel. <i>(continued)</i>					
								SYMMETRIX OPEN HOLE DRILLING: Observed by driller as returns of gravelly clay.	11.70				

REMARKS

Hand dug inspection pit to 1.2m.

INSTALLATION REMARKS

Headworks.

GROUNDWATER DETAILS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
14-09-08	13.00	6.00	13.00	50mm SP
14-09-08	32.50	26.50	32.50	50mm SP

IGSL RC NEWLOG 1M PER PG. 13696.GPJ IGSL.GDT 11/11/08



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REPORT NUMBER

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CONTRACT Dublin Central Development - Draft

DRILLHOLE NO RC08
SHEET Sheet 13 of 33

CO-ORDINATES (_)

GROUND LEVEL (m)
CORE DIAMETER (mm) 102

DATE STARTED 13/09/2008
DATE COMPLETED 14/09/2008

CLIENT ENGINEER Dublin Central Developments Ltd.
AGL Consulting Engineers

INCLINATION -90
FLUSH Polymer Gel

DRILLED BY Millennium
LOGGED BY A. Mahony

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
12								SYMMETRIX OPEN HOLE DRILLING: Observed by driller as returns of gravelly clay. <i>(continued)</i>					

IGSL RC NEWLOG 1M PER PG 13696.GPJ IGSL.GDT 11/11/08

REMARKS Hand dug inspection pit to 1.2m.	INSTALLATION REMARKS Headworks.			
GROUNDWATER DETAILS				
Date	Hole Depth	Casing Depth	Depth to Water	Comments
INSTALLATION DETAILS				
Date	Tip Depth	RZ Top	RZ Base	Type
14-09-08	13.00	6.00	13.00	50mm SP
14-09-08	32.50	26.50	32.50	50mm SP



GEOTECHNICAL CORE LOG RECORD

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CONTRACT Dublin Central Development - Draft	DRILLHOLE NO RC08
	SHEET Sheet 14 of 33
CO-ORDINATES (_)	GROUND LEVEL (m)
	CORE DIAMETER (mm) 102
CLIENT Dublin Central Developments Ltd.	DATE STARTED 13/09/2008
ENGINEER AGL Consulting Engineers	DATE COMPLETED 14/09/2008
	DRILLED BY Millennium
INCLINATION -90	LOGGED BY A. Mahony
FLUSH Polymer Gel	

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
13								SYMMETRIX OPEN HOLE DRILLING: Observed by driller as returns of gravelly clay. <i>(continued)</i>					

REMARKS Hand dug inspection pit to 1.2m.	INSTALLATION REMARKS Headworks.															
	GROUNDWATER DETAILS															
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">Date</th> <th style="width: 15%;">Hole Depth</th> <th style="width: 15%;">Casing Depth</th> <th style="width: 15%;">Depth to Water</th> <th style="width: 40%;">Comments</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	Date	Hole Depth	Casing Depth	Depth to Water	Comments										
Date	Hole Depth	Casing Depth	Depth to Water	Comments												
INSTALLATION DETAILS																
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">Date</th> <th style="width: 15%;">Tip Depth</th> <th style="width: 15%;">RZ Top</th> <th style="width: 15%;">RZ Base</th> <th style="width: 40%;">Type</th> </tr> </thead> <tbody> <tr> <td>14-09-08</td> <td>13.00</td> <td>6.00</td> <td>13.00</td> <td>50mm SP</td> </tr> <tr> <td>14-09-08</td> <td>32.50</td> <td>26.50</td> <td>32.50</td> <td>50mm SP</td> </tr> </tbody> </table>	Date	Tip Depth	RZ Top	RZ Base	Type	14-09-08	13.00	6.00	13.00	50mm SP	14-09-08	32.50	26.50	32.50	50mm SP	
Date	Tip Depth	RZ Top	RZ Base	Type												
14-09-08	13.00	6.00	13.00	50mm SP												
14-09-08	32.50	26.50	32.50	50mm SP												

IGSL RC NEWLOG 1M PER PG 13696.GPJ IGSL GDT 11/11/08



GEOTECHNICAL CORE LOG RECORD

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DRILLHOLE NO RC08
SHEET Sheet 15 of 33

CO-ORDINATES (_)

GROUND LEVEL (m)
CORE DIAMETER (mm) 102

DATE STARTED 13/09/2008
DATE COMPLETED 14/09/2008

CLIENT ENGINEER Dublin Central Developments Ltd.
 AGL Consulting Engineers

INCLINATION -90
FLUSH Polymer Gel

DRILLED BY Millennium
LOGGED BY A. Mahony

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
14								SYMMETRIX OPEN HOLE DRILLING: Observed by driller as returns of gravelly clay. <i>(continued)</i>					

IGSL RC NEW LOG 1M PER PG 13696.GPJ IGSL.GDT 11/11/08

REMARKS Hand dug inspection pit to 1.2m.	INSTALLATION REMARKS Headworks.			
GROUNDWATER DETAILS				
Date	Hole Depth	Casing Depth	Depth to Water	Comments
14-09-08	13.00	6.00	13.00	50mm SP
14-09-08	32.50	26.50	32.50	50mm SP
INSTALLATION DETAILS				
Date	Tip Depth	RZ Top	RZ Base	Type
14-09-08	13.00	6.00	13.00	50mm SP
14-09-08	32.50	26.50	32.50	50mm SP



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DRILLHOLE NO RC08

SHEET Sheet 16 of 33

CO-ORDINATES(_)

GROUND LEVEL (m)

CORE DIAMETER (mm) 102

DATE STARTED 13/09/2008

DATE COMPLETED 14/09/2008

CLIENT ENGINEER Dublin Central Developments Ltd.
AGL Consulting Engineers

INCLINATION -90
FLUSH Polymer Gel

DRILLED BY Millennium
LOGGED BY A. Mahony

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
15	15.00							SYMMETRIX OPEN HOLE DRILLING: Observed by driller as returns of gravelly clay. <i>(continued)</i>	16.00				

REMARKS
Hand dug inspection pit to 1.2m.

INSTALLATION REMARKS
Headworks.

GROUNDWATER DETAILS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
14-09-08	13.00	6.00	13.00	50mm SP
14-09-08	32.50	26.50	32.50	50mm SP

IGSL RC NEWLOG 1M PER PG 13696.GPJ IGSL GDT 11/11/08



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DRILLHOLE NO RC08
SHEET Sheet 17 of 33

CO-ORDINATES (_)

GROUND LEVEL (m)
CORE DIAMETER (mm) 102

DATE STARTED 13/09/2008
DATE COMPLETED 14/09/2008

CLIENT ENGINEER Dublin Central Developments Ltd.
AGL Consulting Engineers

INCLINATION -90
FLUSH Polymer Gel

DRILLED BY Millennium
LOGGED BY A. Mahony

Downhole Depth (m)	Core Run Depth (m)	T.C.R.%	S.C.R.%	R.Q.D.%	Fracture Spacing (mm)	Legend	Non-intact zones (shaded)	Description	Depth (m)	Discontinuities	Elevation	Standpipe Details	SPT (N Value)
16	16.00							Stiff brown sandy gravelly CLAY (gravel is predominantly fine, angular to sub-rounded)					N = 100/80 mm (10, 15, 30, 60, 10)
		100	0	0									

IGSL RC NEW LOG 1M PER PG 13696.GPJ IGSL_GDT 11/11/08

REMARKS
Hand dug inspection pit to 1.2m.

INSTALLATION REMARKS
Headworks.

GROUNDWATER DETAILS

Date	Hole Depth	Casing Depth	Depth to Water	Comments

INSTALLATION DETAILS

Date	Tip Depth	RZ Top	RZ Base	Type
14-09-08	13.00	6.00	13.00	50mm SP
14-09-08	32.50	26.50	32.50	50mm SP